

Fig.1

Fig.2

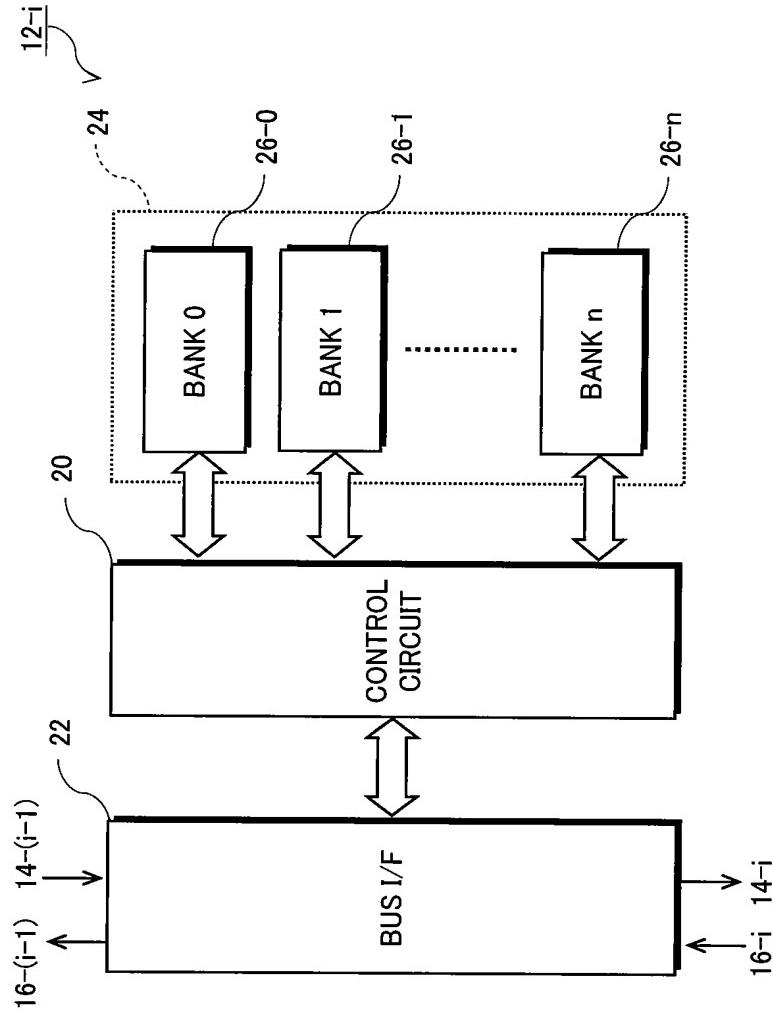


Fig.3

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48
3	FEMALE	16	172	48
4	MALE	28	181	78
5	FEMALE	20	166	55
6	FEMALE	16	168	52
7	MALE	33	174	65
8	MALE	24	177	64
9	FEMALE	18	170	55

SEX	AGE	HEIGHT	WEIGHT
VNo	VNo	VNo	VNo
0 1 1 0 2 1 3 3 4 4 5 5 6 6 7 7 8 8 9 9	0 1 1 3 2 4 3 0 4 5 5 2 6 0 7 6 8 4 9 1	0 16 1 18 2 20 3 21 4 24 5 28 6 33 7 5 8 6 9 3	0 159 1 166 2 168 3 170 4 172 5 174 6 177 7 181 8 6 9 2
VL ASCENDING ORDER	VL ASCENDING ORDER	VL ASCENDING ORDER	VL ASCENDING ORDER

OrdSet
0 0
1 1
2 2
3 3
4 4
5 5
6 6
7 7
8 8
9 9

Fig.4

Fig.5

OFFSET= 0

PMM-0

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48

OFFSET= 3

PMM-1

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	16	172	48
1	MALE	28	181	78

OFFSET= 5

PMM-2

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	20	166	55
1	FEMALE	16	168	52
2	MALE	33	174	65

OFFSET= 8

PMM-3

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	MALE	24	177	64
1	FEMALE	18	170	55

Fig.6

SEX (PMM-0)		AGE (PMM-0)		HEIGHT (PMM-0)		WEIGHT (PMM-0)	
GOrd	OrdSet	VNo	VL	GVNo	VL	GVNo	VL
0	-	0	MALE	0	18	0	48
1	-	1	FEMALE	1	21	1	55
2	-	2		2	24	2	64
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	
SEX (PMM-1)		AGE (PMM-1)		HEIGHT (PMM-1)		WEIGHT (PMM-1)	
GOrd	OrdSet	VNo	VL	GVNo	VL	GVNo	VL
0	-	0	MALE	0	16	0	48
1	-	1	FEMALE	1	28	1	78
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.7

SEX (PMM-2)			AGE (PMM-2)			HEIGHT (PMM-2)			WEIGHT (PMM-2)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	VNo
0	-	0	MALE	0	0	16	0	0	52	0	-
1	-	1	FEMALE	1	1	20	1	1	55	1	-
2	-	0		2	2	33	2	2	65	2	-
ASCENDING ORDER			ASCENDING ORDER			ASCENDING ORDER			ASCENDING ORDER		
SEX (PMM-3)			AGE (PMM-3)			HEIGHT (PMM-3)			WEIGHT (PMM-3)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	VNo
0	-	0	MALE	0	0	18	0	0	55	0	-
1	-	1	FEMALE	1	1	24	1	1	64	1	-
ASCENDING ORDER			ASCENDING ORDER			ASCENDING ORDER			ASCENDING ORDER		

Fig.8

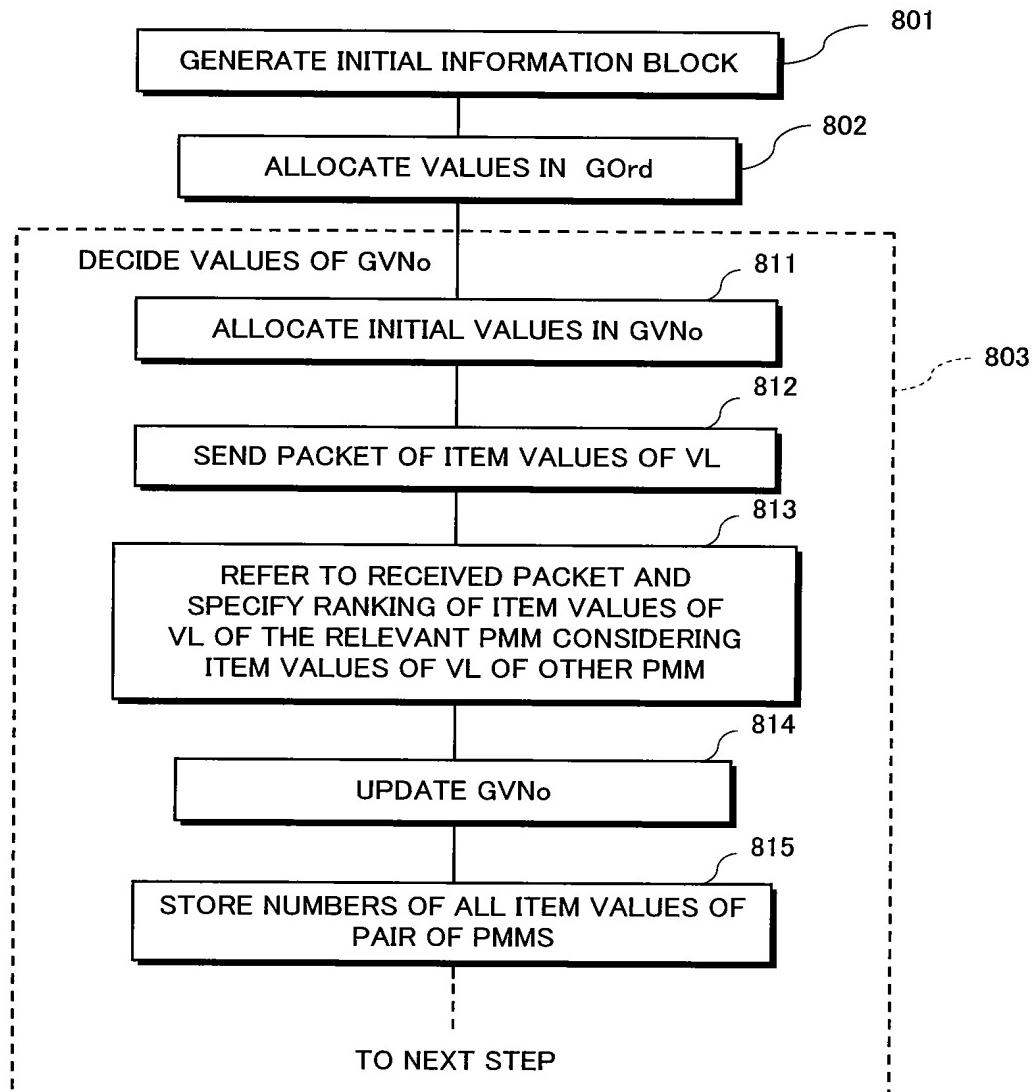


Fig.9

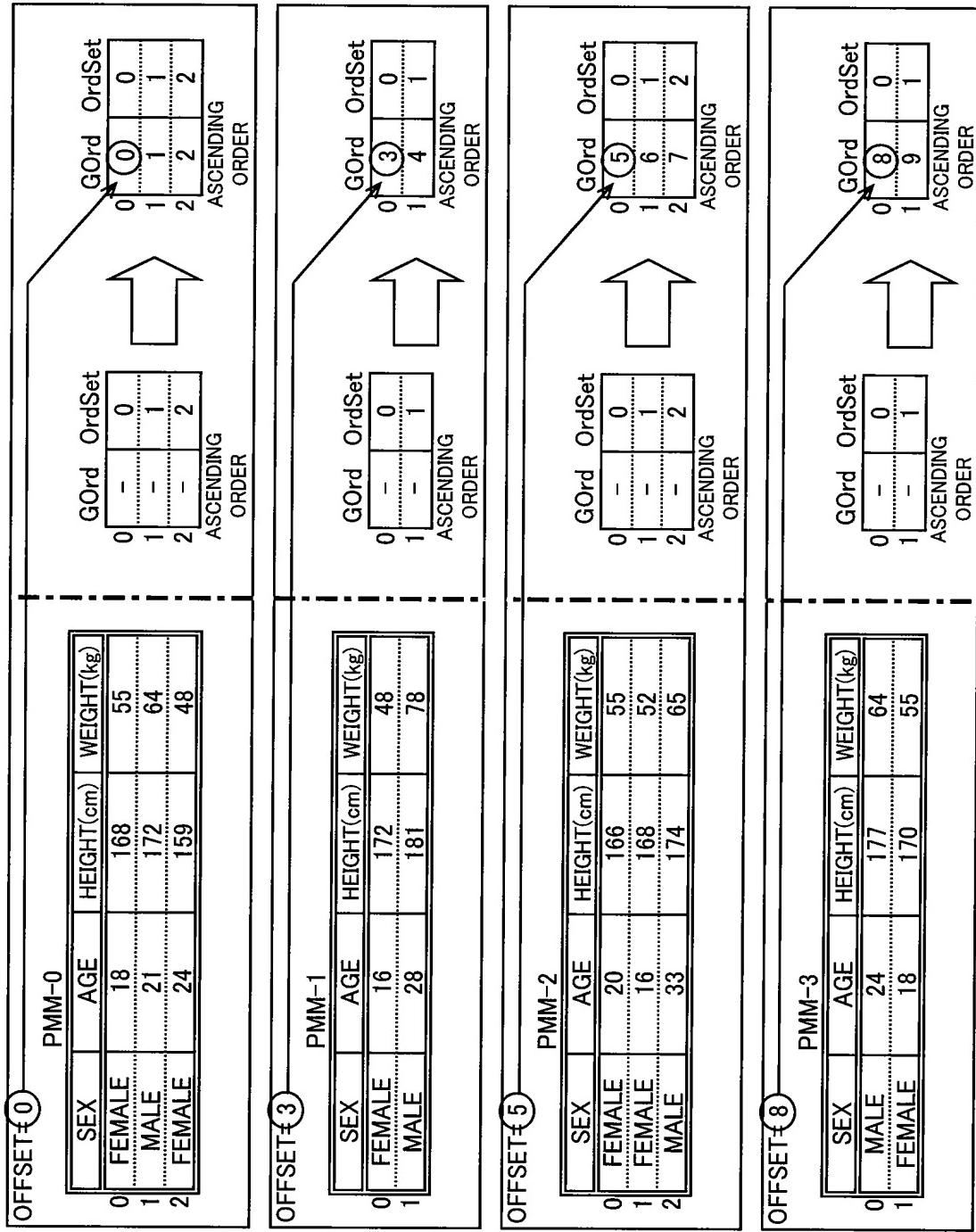


Fig.10

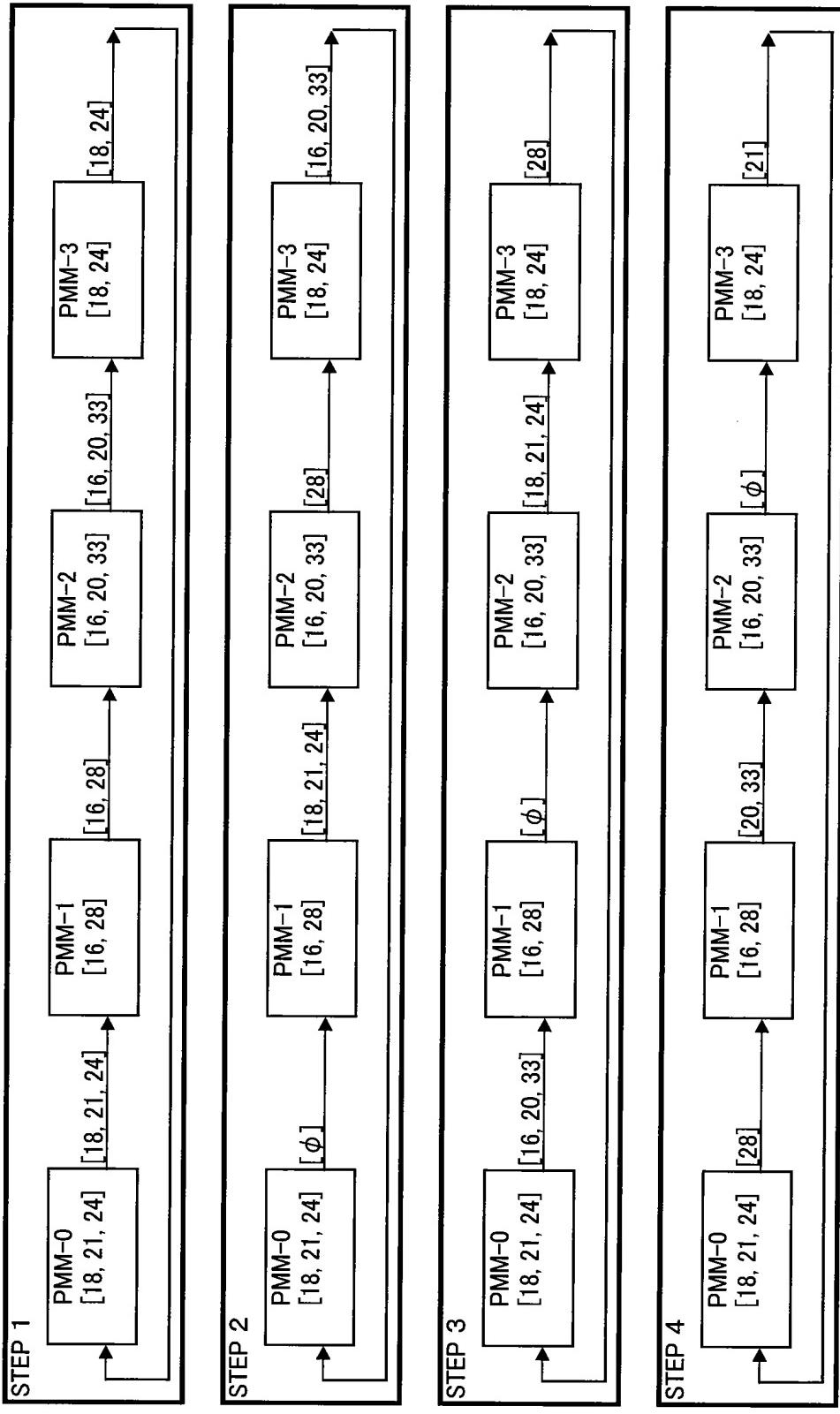


Fig.11

STEP 1

RECEIVED LIST	PMM-1 [18, 21, 24](ASCENDING ORDER)	PMM-2 [16, 28](ASCENDING ORDER)	PMM-3 [16, 20, 33](ASCENDING ORDER)
PMM-0 [18, 24](ASCENDING ORDER)			

STEP 2

RECEIVED LIST	PMM-1 [18, 21, 24](ASCENDING ORDER) [ϕ](ASCENDING ORDER)	PMM-2 [16, 28](ASCENDING ORDER) [18, 21, 24](ASCENDING ORDER)	PMM-3 [16, 20, 33](ASCENDING ORDER) [28](ASCENDING ORDER)
PMM-0 [18, 24](ASCENDING ORDER) [16, 20, 33](ASCENDING ORDER)			

STEP 3

RECEIVED LIST	PMM-1 [18, 21, 24](ASCENDING ORDER) [ϕ](ASCENDING ORDER)	PMM-2 [16, 28](ASCENDING ORDER) [18, 21, 24](ASCENDING ORDER) [ϕ](ASCENDING ORDER)	PMM-3 [16, 20, 33](ASCENDING ORDER) [28](ASCENDING ORDER) [18, 21, 24](ASCENDING ORDER)
PMM-0 [18, 24](ASCENDING ORDER) [16, 20, 33](ASCENDING ORDER) [28](ASCENDING ORDER)			

STEP 4

RECEIVED LIST	PMM-1 [18, 21, 24](ASCENDING ORDER) [ϕ](ASCENDING ORDER)	PMM-2 [16, 28](ASCENDING ORDER) [18, 21, 24](ASCENDING ORDER) [ϕ](ASCENDING ORDER)	PMM-3 [16, 20, 33](ASCENDING ORDER) [28](ASCENDING ORDER) [18, 21, 24](ASCENDING ORDER) [ϕ](ASCENDING ORDER)
PMM-0 [18, 24](ASCENDING ORDER) [16, 20, 33](ASCENDING ORDER) [28](ASCENDING ORDER) [21](ASCENDING ORDER)			

Fig.12

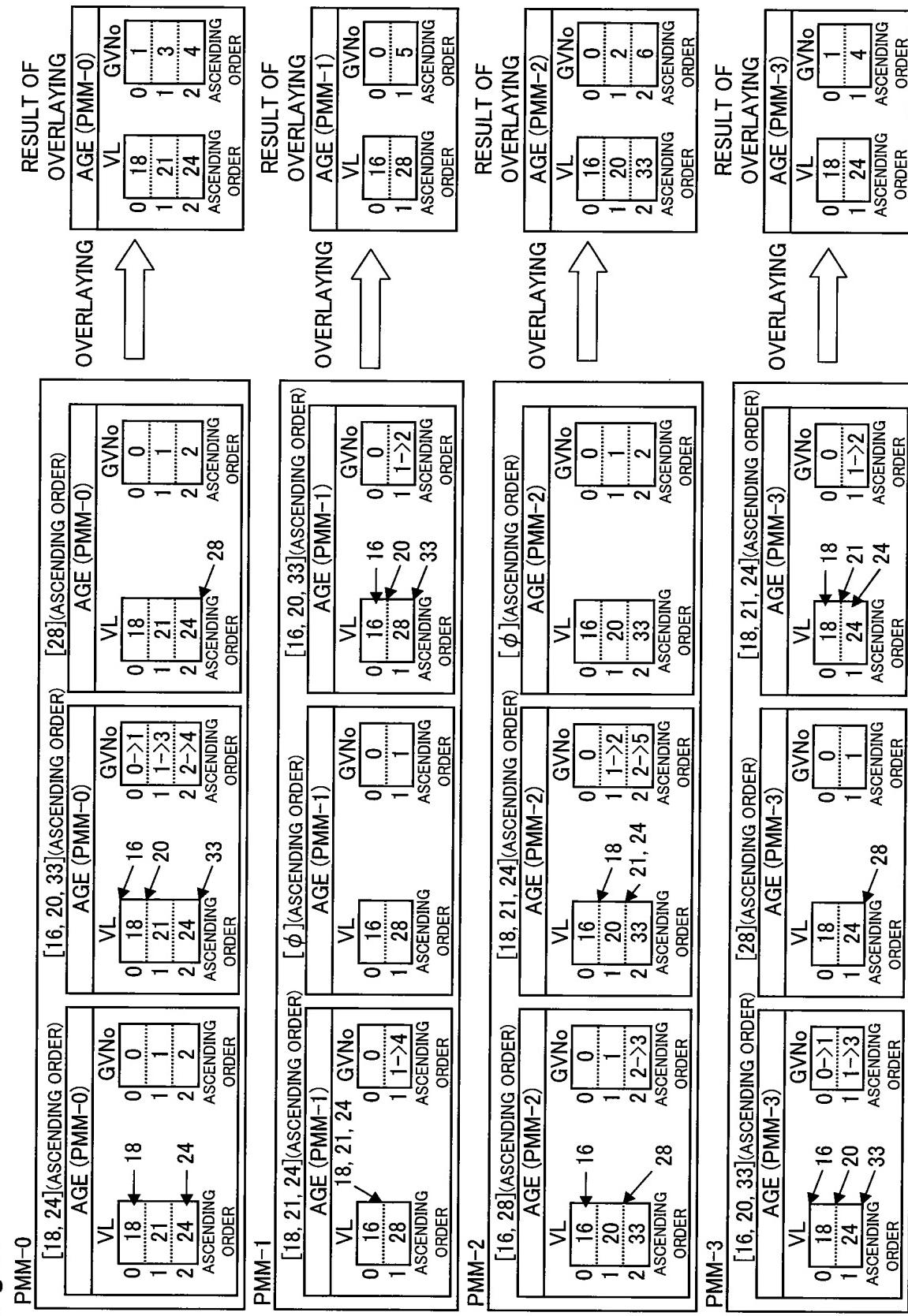


Fig. 13A

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48
3	FEMALE	16	172	48
4	MALE	28	181	78
5	FEMALE	20	166	55
6	FEMALE	16	168	52
7	MALE	33	174	65
8	MALE	24	177	64
9	FEMALE	18	170	55

Fig. 13B

SEX	AGE	HEIGHT	WEIGHT
VNo	VL	VNo	VL
0 1 1 0 2 1 3 3 4 4 5 5 6 6 7 7 8 8 9 9	0 MALE 1 FEMALE ASCENDING ORDER	0 16 1 18 2 20 3 21 4 24 5 28 6 33 7 5 8 4 9 1	0 2 1 4 2 0 3 4 4 7 5 1 6 2 7 5 8 6 9 3
OrdSet		VNo	VL
0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9		0 2 1 3 2 0 3 0 4 5 5 2 6 1 7 4 8 3 9 2	0 48 1 52 2 55 3 64 4 65 5 78 6 1 7 4 8 3 9 2

Fig.14

OFFSET= 0

PMM-0

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48

OFFSET= 3

PMM-1

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	16	172	48
1	MALE	28	181	78

OFFSET= 5

PMM-2

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	20	166	55
1	FEMALE	16	168	52
2	MALE	33	174	65

OFFSET= 8

PMM-3

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	MALE	24	177	64
1	FEMALE	18	170	55

Fig.15

OFFSET= 0				OFFSET= 3				OFFSET= 5				OFFSET= 8			
SEX (PMM-0)				AGE (PMM-0)				HEIGHT (PMM-0)				WEIGHT (PMM-0)			
GOrd OrdSet				GOrd OrdSet				GOrd OrdSet				GOrd OrdSet			
VNo VL GVN _{No}				VNo VL GVN _{No}				VNo VL GVN _{No}				VNo VL GVN _{No}			
0 0 0 MALE				0 0 0 MALE				0 1 0 159				0 1 0 48			
1 0 1 FEMALE				1 1 1 168				1 2 1 55				1 2 1 64			
2 1 ASCENDING ORDER				2 2 ASCENDING ORDER				2 0 ASCENDING ORDER				2 0 ASCENDING ORDER			
ASCENDING ORDER				ASCENDING ORDER				ASCENDING ORDER				ASCENDING ORDER			

Fig.16A

E AGE	EVENT
0 18	H2
1 18	C1
2 20	A
3 22	C2
4 22	P1
5 27	P2
6 33	M

Fig.16B

E AGE		EVENT	
VNo	VL	VNo	VL
0 0	0 18	0 3	0 A
1 0	1 20	1 1	1 C1
2 1	2 22	2 0	2 C2
3 2	3 27	3 2	3 H2
4 2	4 33	4 5	4 M
5 3	5 3	5 6	5 P1
6 4	6 4	6 4	6 P2

ASCENDING ORDER

ASCENDING ORDER

OrdSet
0 0
1 1
2 2
3 3
4 4
5 5
6 6

Fig.17

PMM-0	OFFSET = 0
E AGE	EVENT
0 18	H2
1 18	C1
PMM-1	OFFSET = 2
E AGE	EVENT
0 20	A
1 22	C2
PMM-2	OFFSET = 4
E AGE	EVENT
0 22	P1
1 27	P2
PMM-3	OFFSET = 6
E AGE	EVENT
0 33	M

Fig. 18

OFFSET= 0

		E AGE (PMM-0)			EVENT (PMM-0)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo
0	0	0	0	18	0	C1	1
1	1	1	0	ASCENDING ORDER	1	H2	3

OFFSET= 2

OFFSET= 4

		E AGE (PMM-2)			EVENT (PMM-2)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo
0	4	0	0	22	0	P1	5
1	5	1	1	27	1	P2	6
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

OFFSET= 6

		E AGE (PMM-3)			EVENT (PMM-3)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo
0	6	0	0	33	0	M	4
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

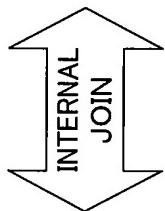
Fig.19

TABLE 1

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48
3	FEMALE	16	172	48
4	MALE	28	181	78
5	FEMALE	20	166	55
6	FEMALE	16	168	52
7	MALE	33	174	65
8	MALE	24	177	64
9	FEMALE	18	170	55

TABLE 2

	E AGE	EVENT
0	18	H2
1	18	C1
2	20	A
3	22	C2
4	22	P1
5	27	P2
6	33	M



GENERATED JOIN TABLE

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)	E AGE	EVENT
0	FEMALE	18	168	55	0	H2
1	FEMALE	18	168	55	1	C1
2	FEMALE	20	166	55	2	A
3	MALE	33	174	65	6	M
4	FEMALE	18	170	55	0	H2
5	FEMALE	18	170	55	1	C1

	E AGE	EVENT
0	18	H2
1	18	C1
2	20	A
3	22	C2
4	22	P1
5	27	P2
6	33	M

Fig.20

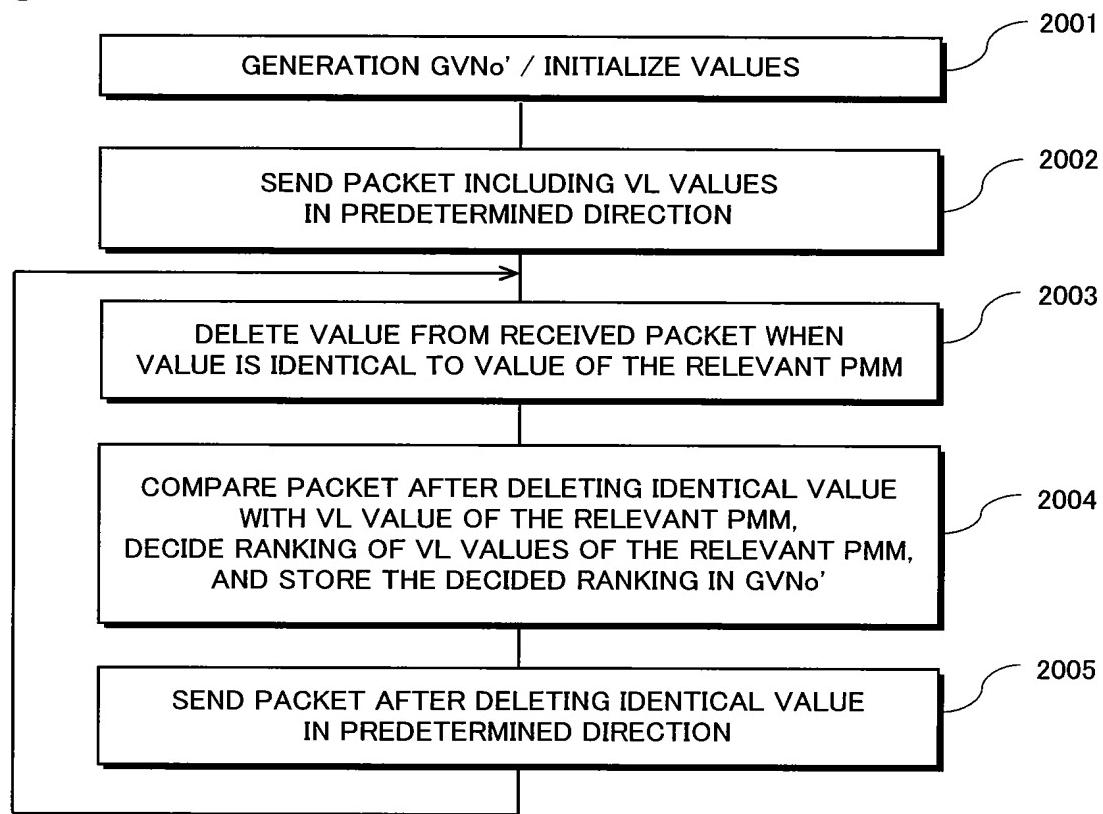


Fig.21

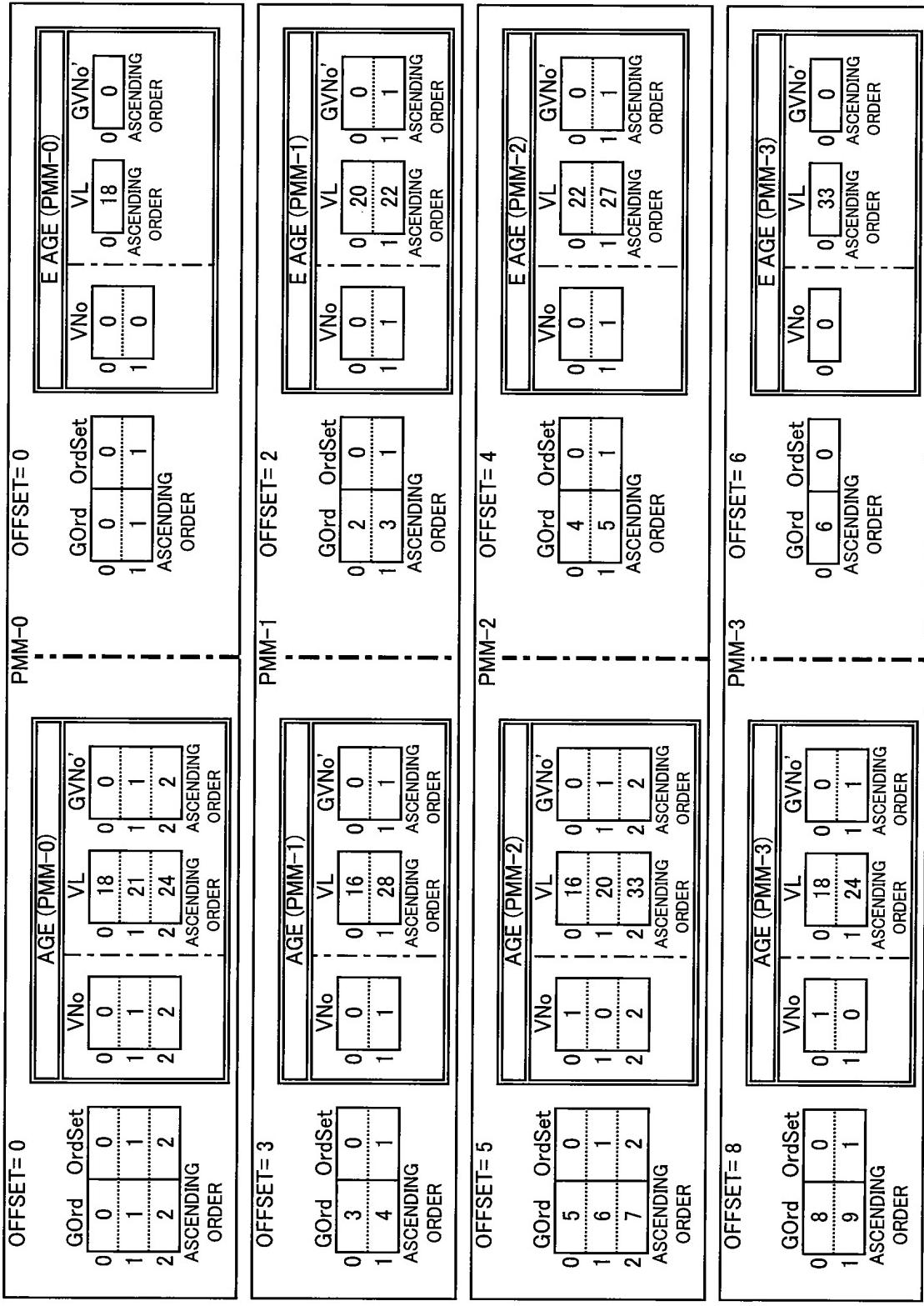


Fig.22 ↪ SEND VL OF EACH OF PMMS

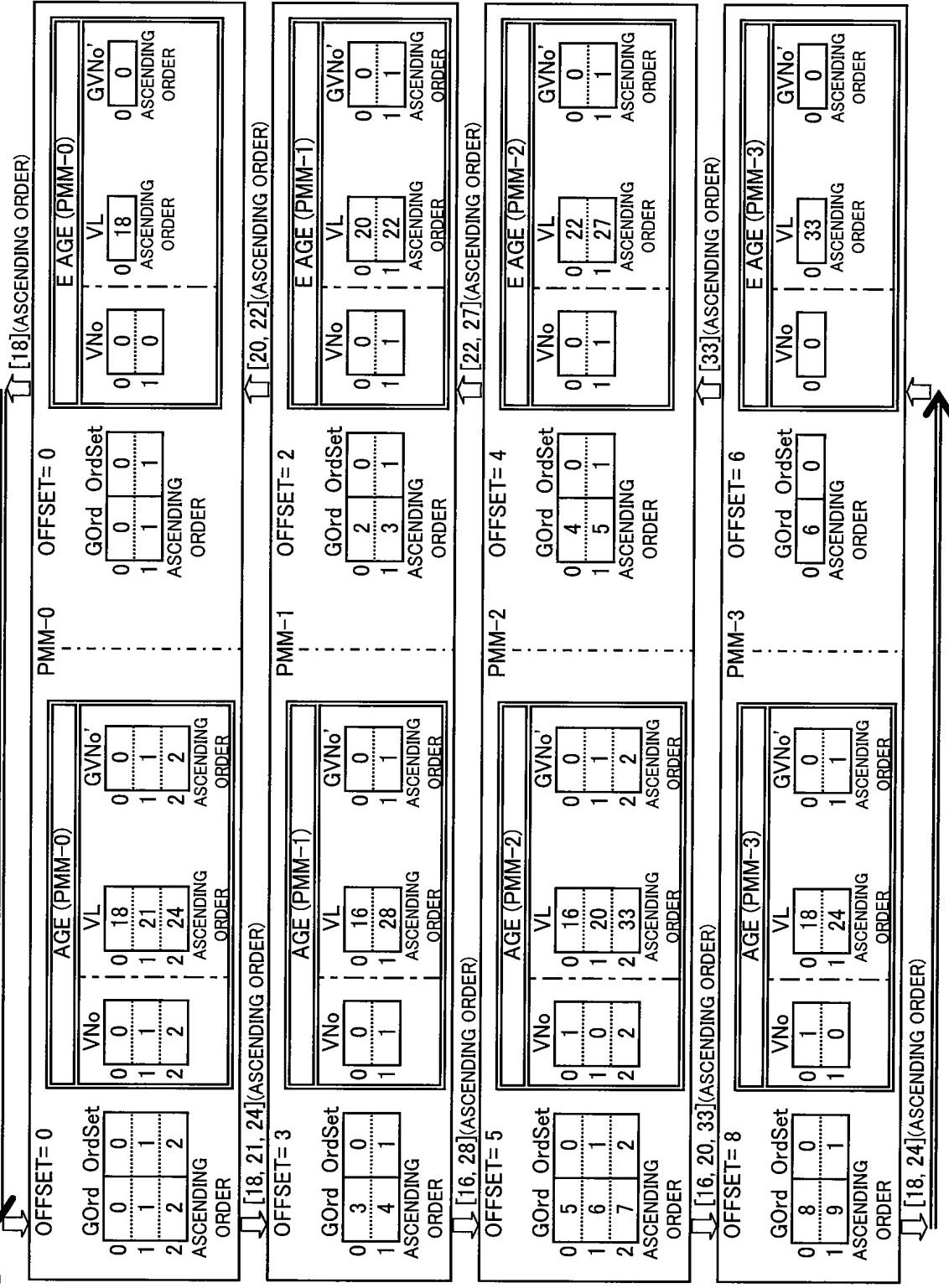


Fig.23

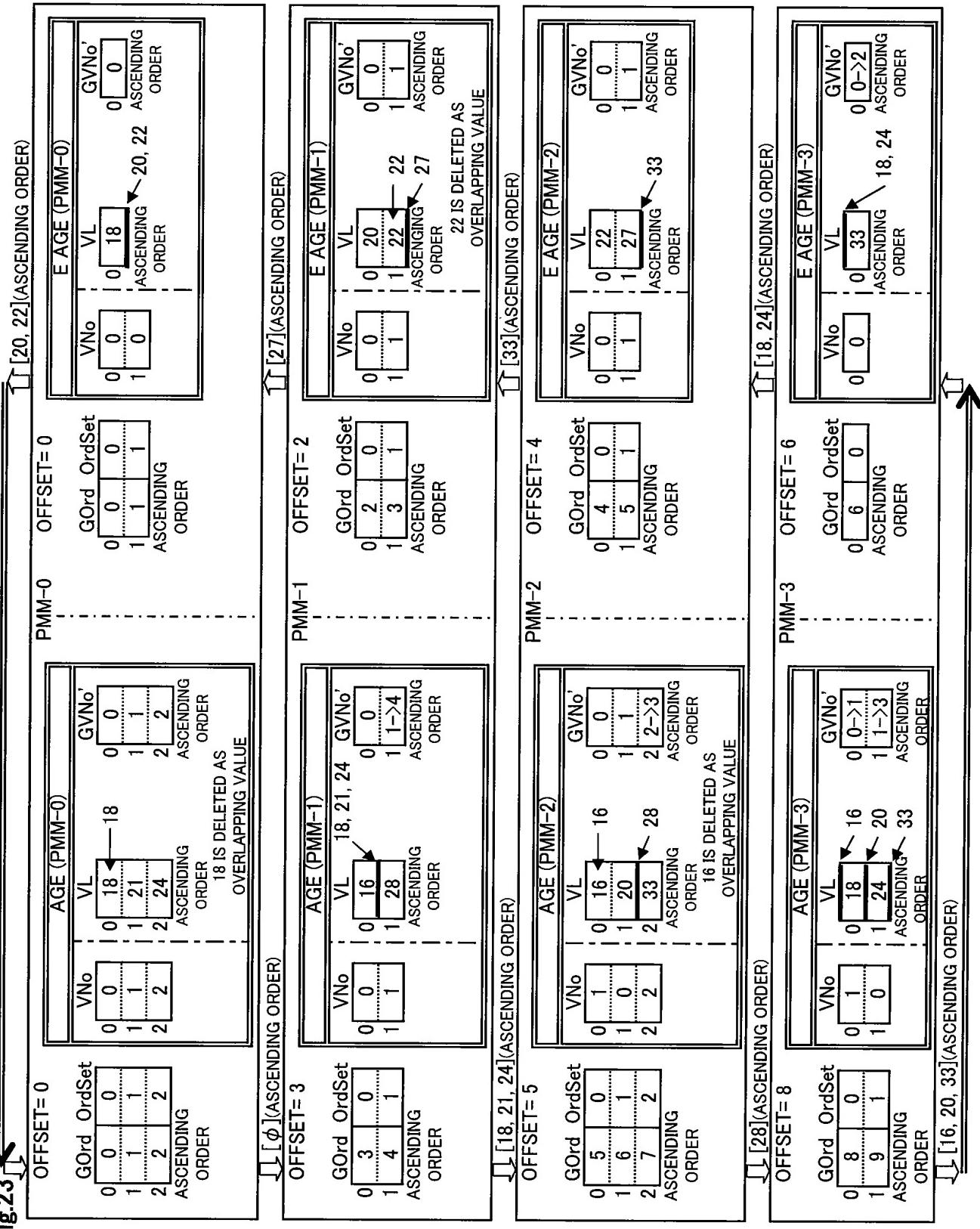


Fig.24

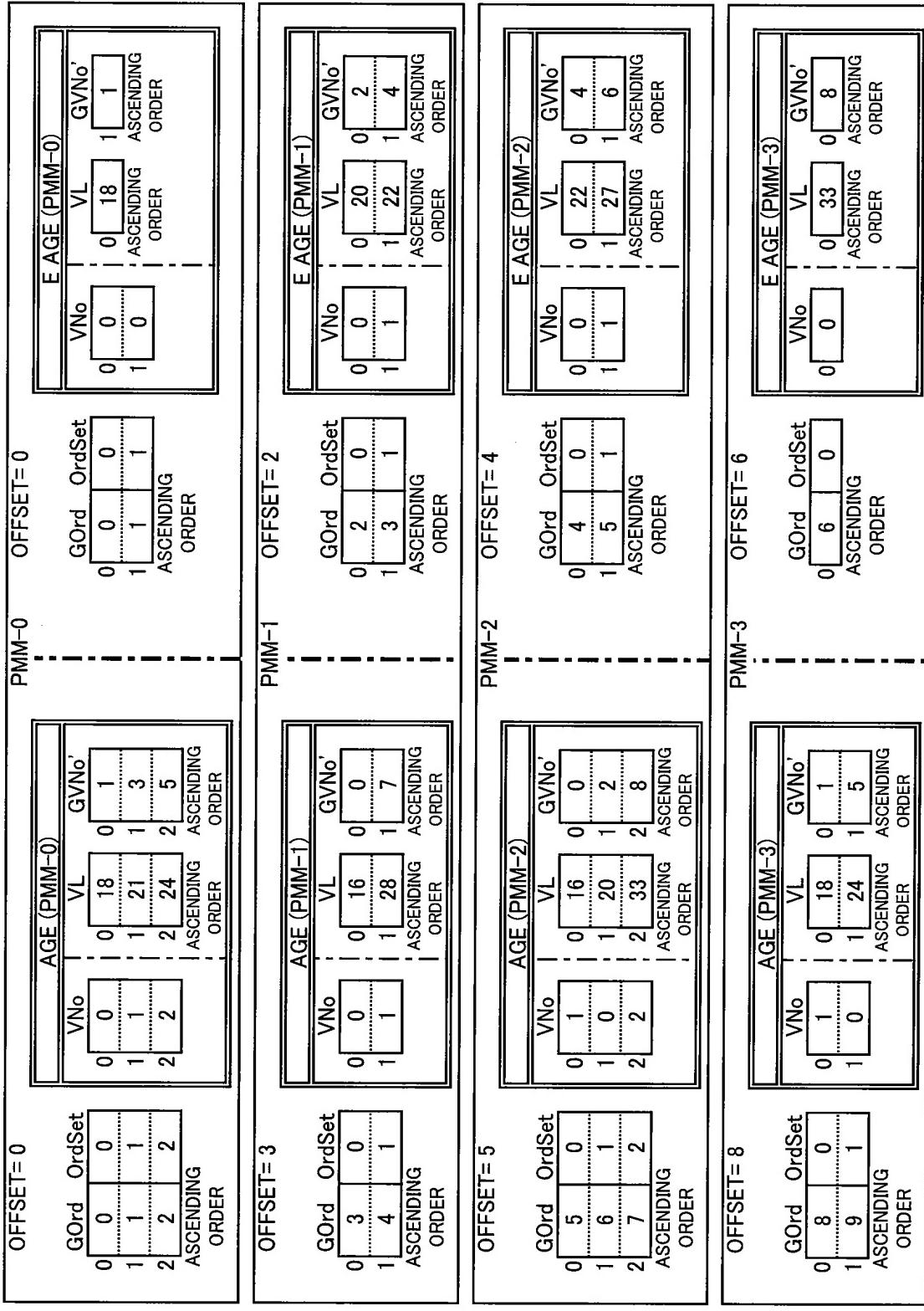


Fig.25

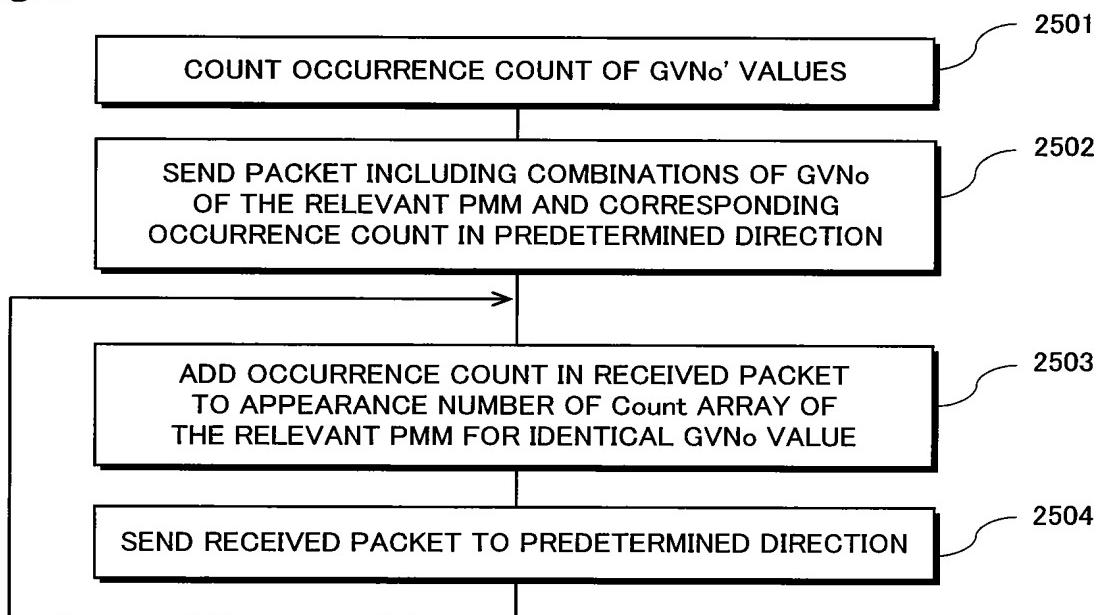


Fig.26

PMM-0 OFFSET= 0	<table border="1"> <thead> <tr> <th colspan="5">E AGE</th></tr> <tr> <th colspan="2">GOrd OrdSet</th><th>VNo</th><th>VL</th><th>GVNo</th></tr> </thead> <tbody> <tr> <td>0</td><td>0</td><td>0</td><td>0</td><td>18</td></tr> <tr> <td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr> <tr> <td colspan="2"></td><td colspan="2">ASCENDING ORDER</td><td>ASCENDING ORDER</td></tr> </tbody> </table>	E AGE					GOrd OrdSet		VNo	VL	GVNo	0	0	0	0	18	1	1	1	1	0			ASCENDING ORDER		ASCENDING ORDER															
E AGE																																									
GOrd OrdSet		VNo	VL	GVNo																																					
0	0	0	0	18																																					
1	1	1	1	0																																					
		ASCENDING ORDER		ASCENDING ORDER																																					
PMM-1 OFFSET= 2	<table border="1"> <thead> <tr> <th colspan="5">E AGE</th></tr> <tr> <th colspan="2">GOrd OrdSet</th><th>VNo</th><th>VL</th><th>GVNo</th></tr> </thead> <tbody> <tr> <td>0</td><td>2</td><td>0</td><td>0</td><td>1</td></tr> <tr> <td>1</td><td>3</td><td>1</td><td>1</td><td>2</td></tr> <tr> <td colspan="2">ASCENDING ORDER</td><td colspan="2">ASCENDING ORDER</td><td>ASCENDING ORDER</td></tr> <tr> <th colspan="2">GVNo'</th><th colspan="2">Count</th><th></th></tr> <tr> <td colspan="2">0</td><td colspan="2">0</td><td>0</td></tr> <tr> <td colspan="2">1</td><td colspan="2">1</td><td>0</td></tr> </tbody> </table>	E AGE					GOrd OrdSet		VNo	VL	GVNo	0	2	0	0	1	1	3	1	1	2	ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	GVNo'		Count			0		0		0	1		1		0
E AGE																																									
GOrd OrdSet		VNo	VL	GVNo																																					
0	2	0	0	1																																					
1	3	1	1	2																																					
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER																																					
GVNo'		Count																																							
0		0		0																																					
1		1		0																																					
PMM-2 OFFSET= 4	<table border="1"> <thead> <tr> <th colspan="5">E AGE</th></tr> <tr> <th colspan="2">GOrd OrdSet</th><th>VNo</th><th>VL</th><th>GVNo</th></tr> </thead> <tbody> <tr> <td>0</td><td>4</td><td>0</td><td>0</td><td>2</td></tr> <tr> <td>1</td><td>5</td><td>1</td><td>1</td><td>3</td></tr> <tr> <td colspan="2">ASCENDING ORDER</td><td colspan="2">ASCENDING ORDER</td><td>ASCENDING ORDER</td></tr> <tr> <th colspan="2">GVNo'</th><th colspan="2">Count</th><th></th></tr> <tr> <td colspan="2">0</td><td colspan="2">0</td><td>0</td></tr> <tr> <td colspan="2">1</td><td colspan="2">1</td><td>0</td></tr> </tbody> </table>	E AGE					GOrd OrdSet		VNo	VL	GVNo	0	4	0	0	2	1	5	1	1	3	ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	GVNo'		Count			0		0		0	1		1		0
E AGE																																									
GOrd OrdSet		VNo	VL	GVNo																																					
0	4	0	0	2																																					
1	5	1	1	3																																					
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER																																					
GVNo'		Count																																							
0		0		0																																					
1		1		0																																					
PMM-3 OFFSET= 6	<table border="1"> <thead> <tr> <th colspan="5">E AGE</th></tr> <tr> <th colspan="2">GOrd OrdSet</th><th>VNo</th><th>VL</th><th>GVNo</th></tr> </thead> <tbody> <tr> <td>0</td><td>6</td><td>0</td><td>0</td><td>4</td></tr> <tr> <td colspan="2">ASCENDING ORDER</td><td colspan="2">ASCENDING ORDER</td><td>ASCENDING ORDER</td></tr> <tr> <th colspan="2">GVNo'</th><th colspan="2">Count</th><th></th></tr> <tr> <td colspan="2">0</td><td colspan="2">0</td><td>0</td></tr> <tr> <td colspan="2">1</td><td colspan="2">1</td><td>0</td></tr> </tbody> </table>	E AGE					GOrd OrdSet		VNo	VL	GVNo	0	6	0	0	4	ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	GVNo'		Count			0		0		0	1		1		0					
E AGE																																									
GOrd OrdSet		VNo	VL	GVNo																																					
0	6	0	0	4																																					
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER																																					
GVNo'		Count																																							
0		0		0																																					
1		1		0																																					

Fig.27

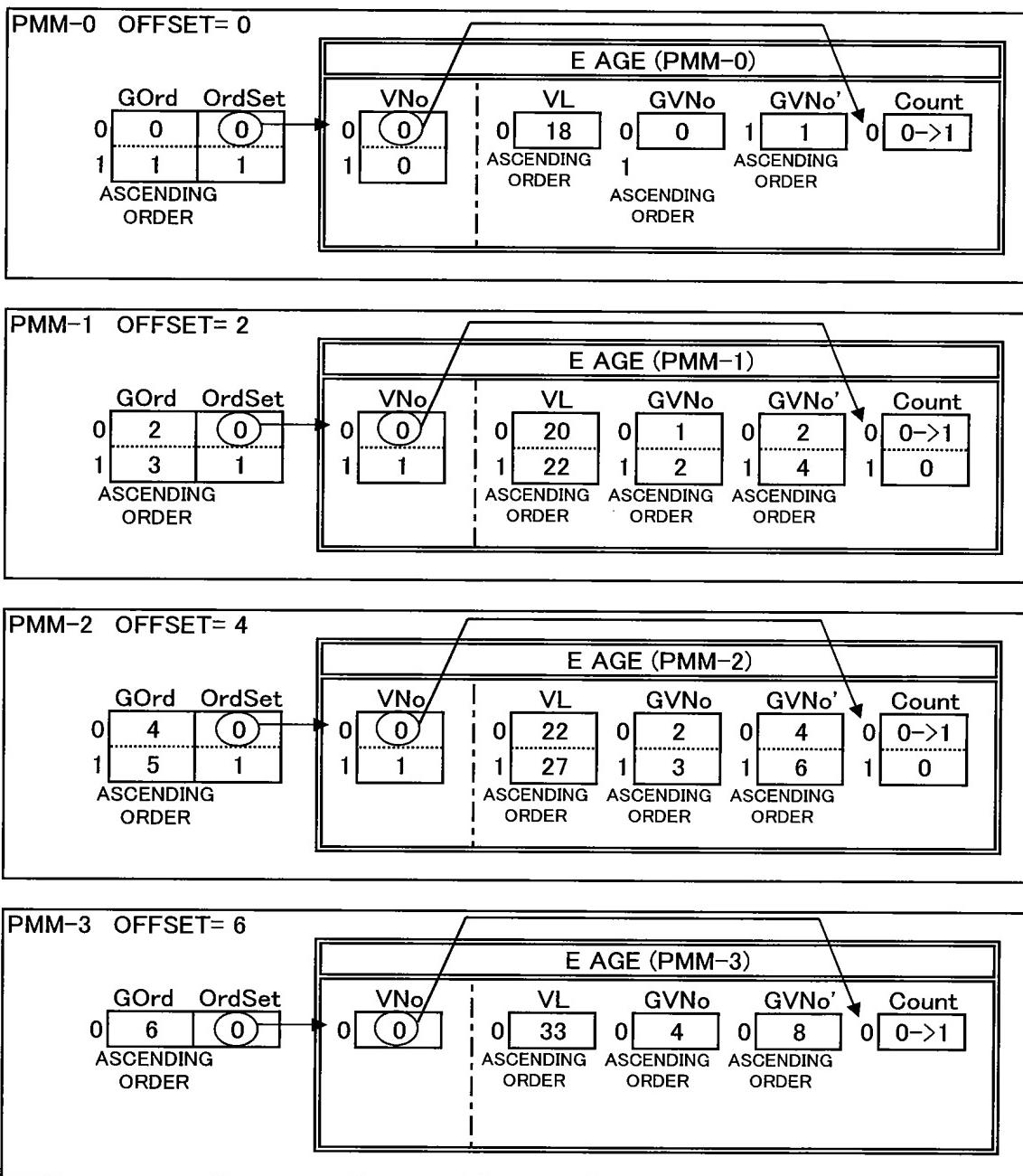


Fig.28

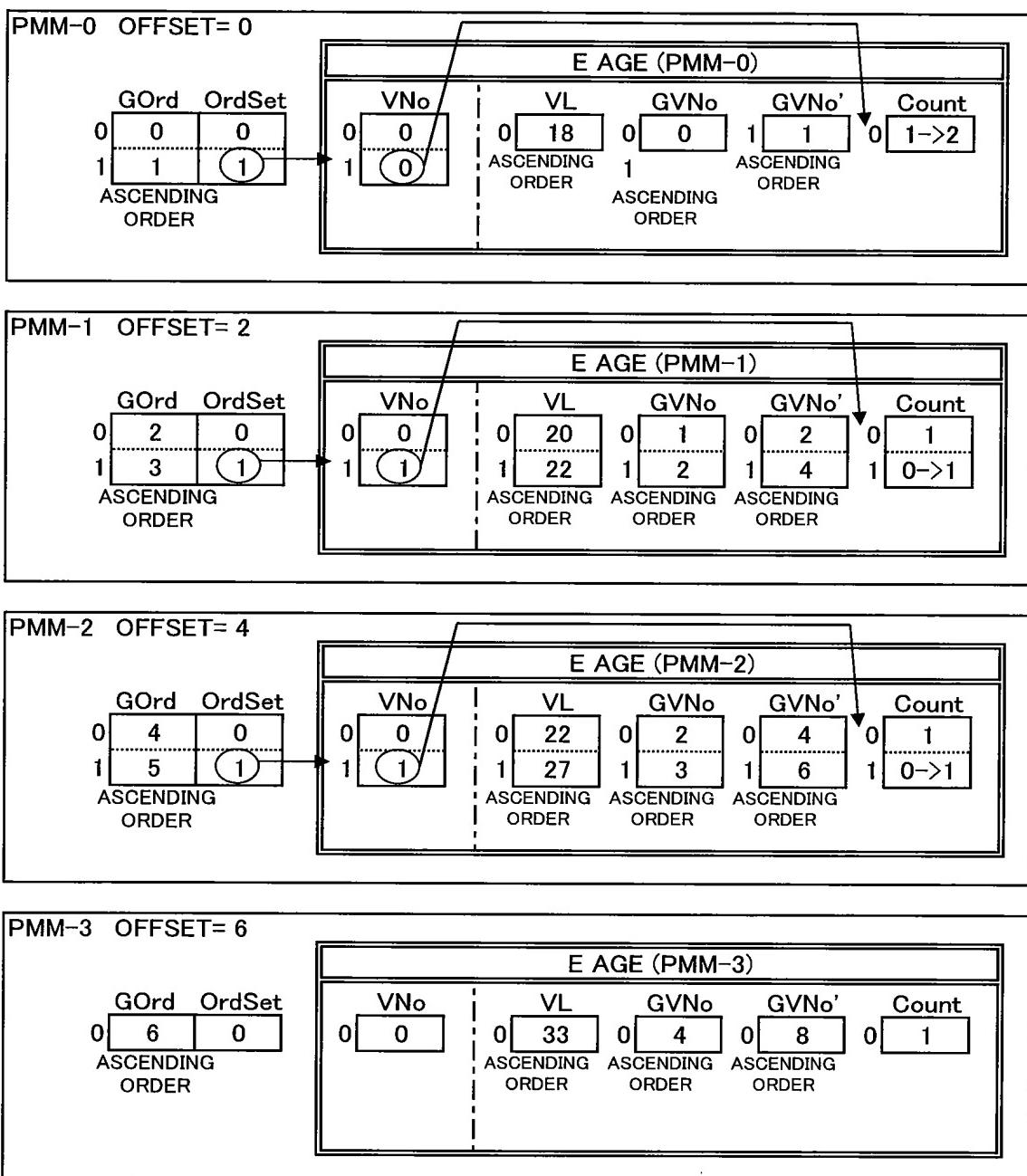


Fig.29A

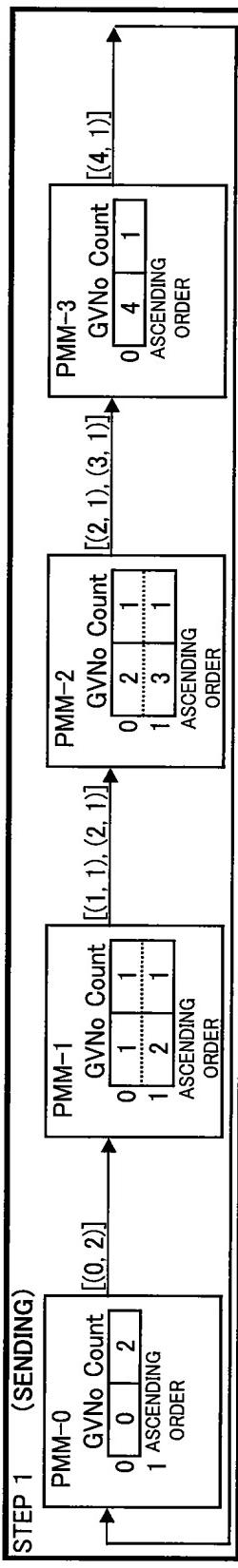


Fig.29B

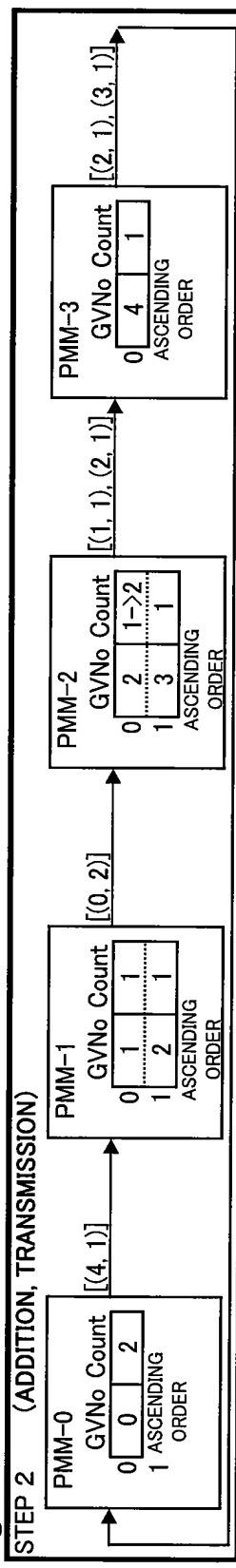


Fig.29C

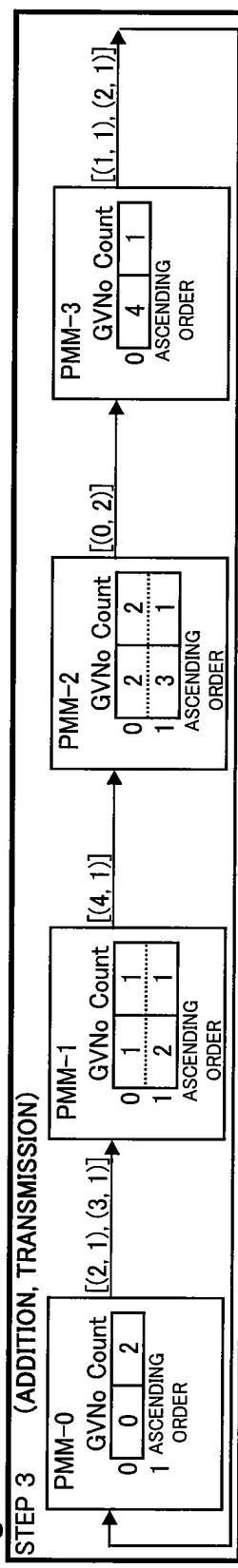


Fig.29D

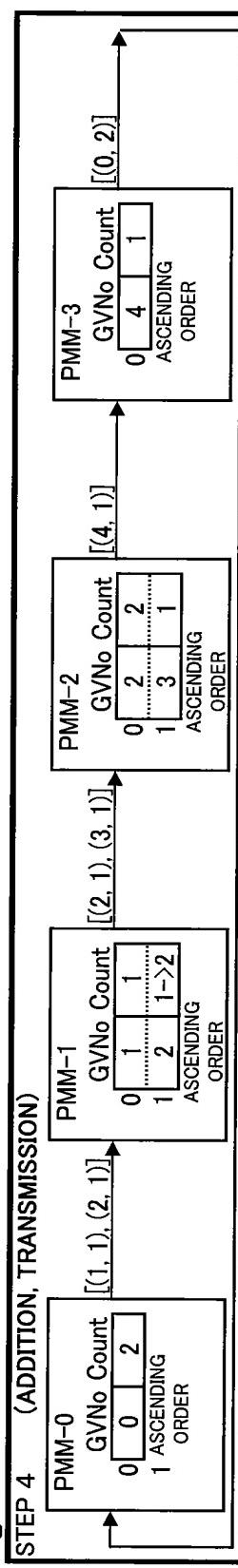


Fig.30

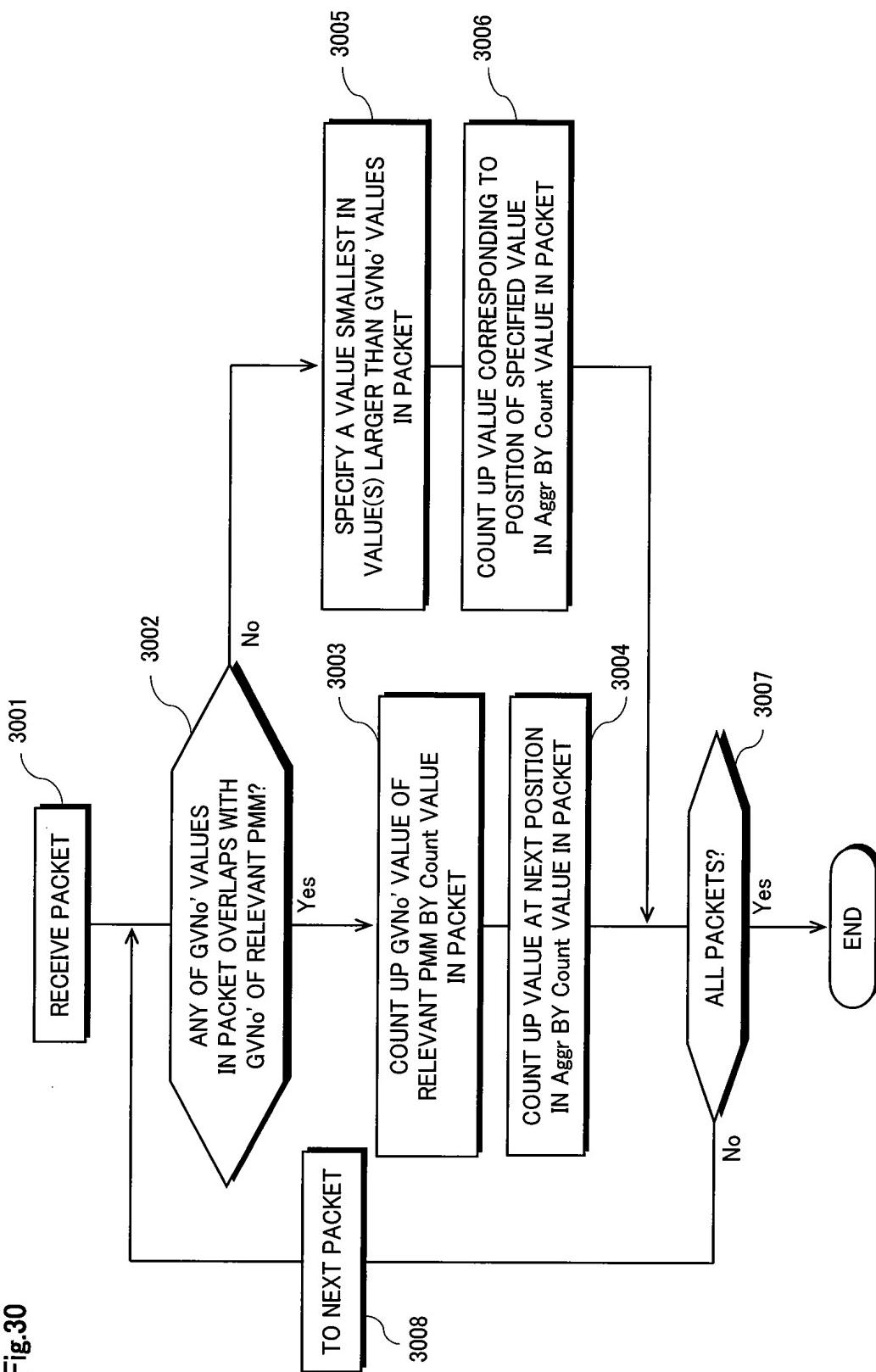


Fig.31

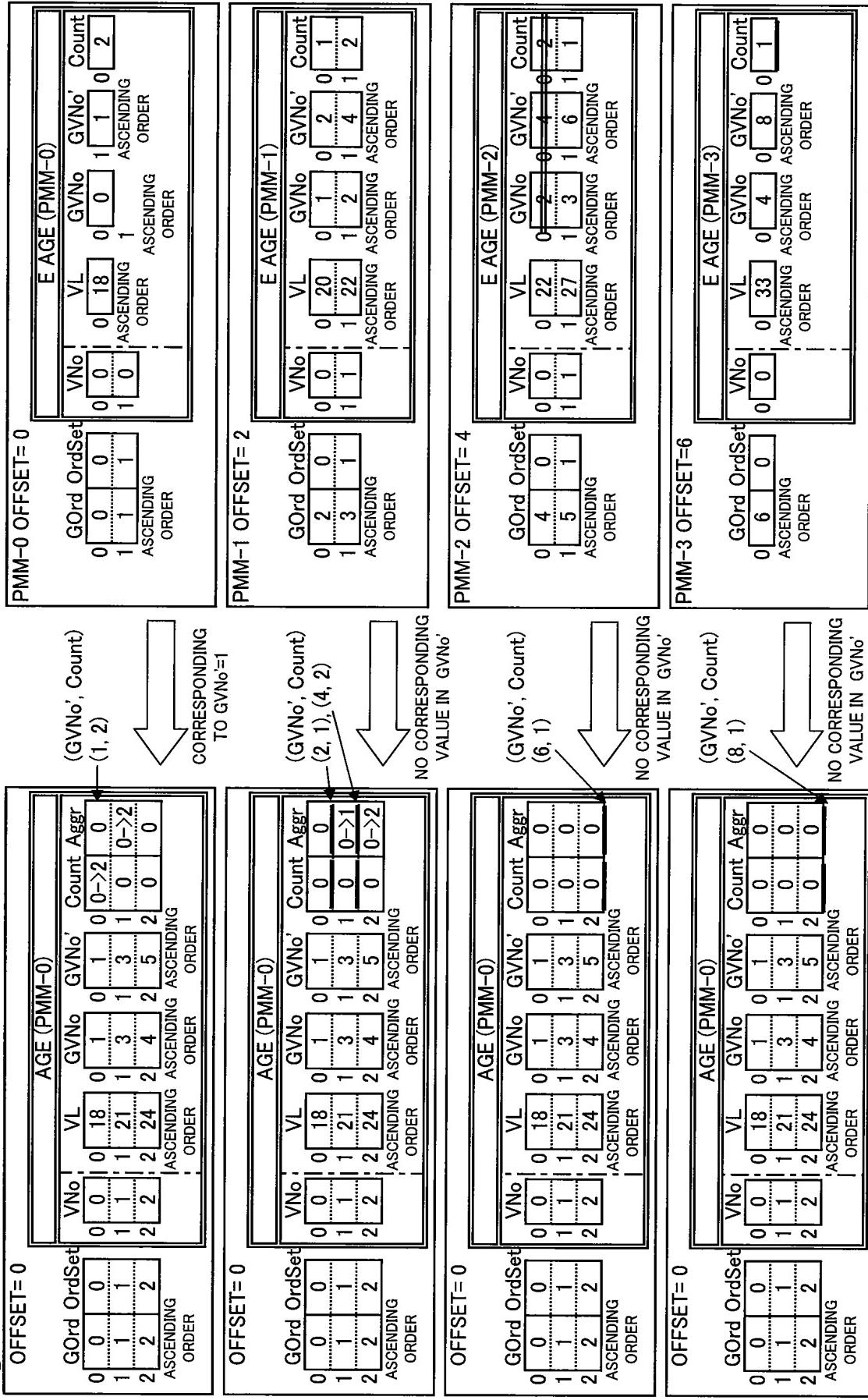


Fig.32

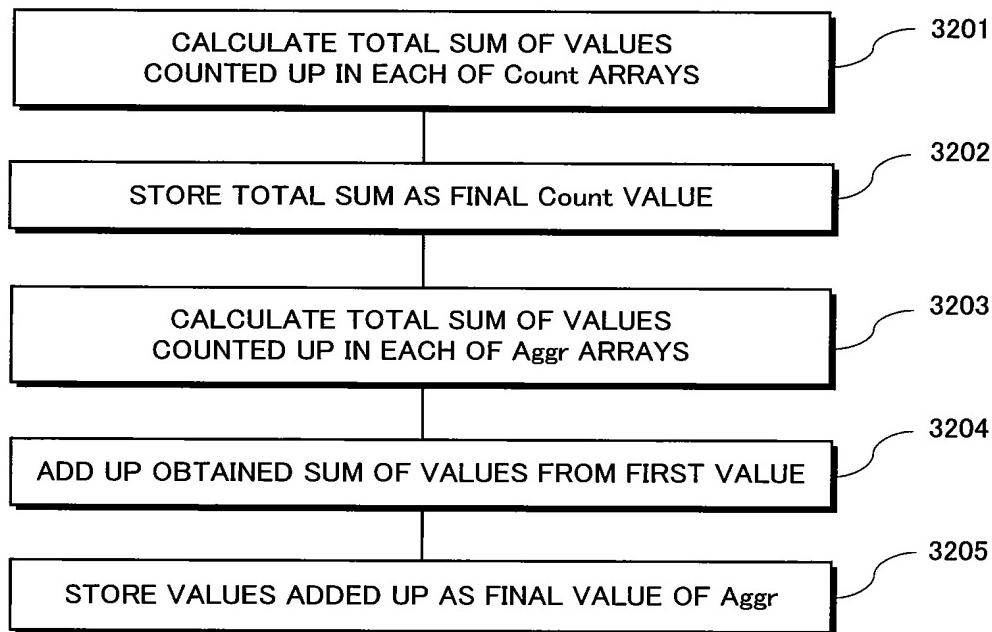
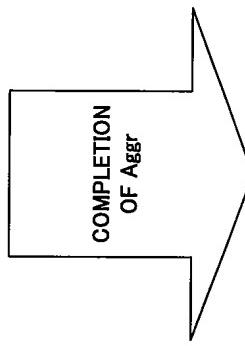


Fig.33A

OFFSET= 0		AGE (PMM-0)					
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	Aggr
0	0	0	0	18	0	2	0
1	1	1	1	21	1	0	3
2	2	2	2	24	2	0	2
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	



OFFSET= 0		AGE (PMM-0)					
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	Aggr
0	0	0	0	1	0	2	0
1	1	1	1	21	1	3	1
2	2	2	2	24	2	5	2
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.33B

Fig.34

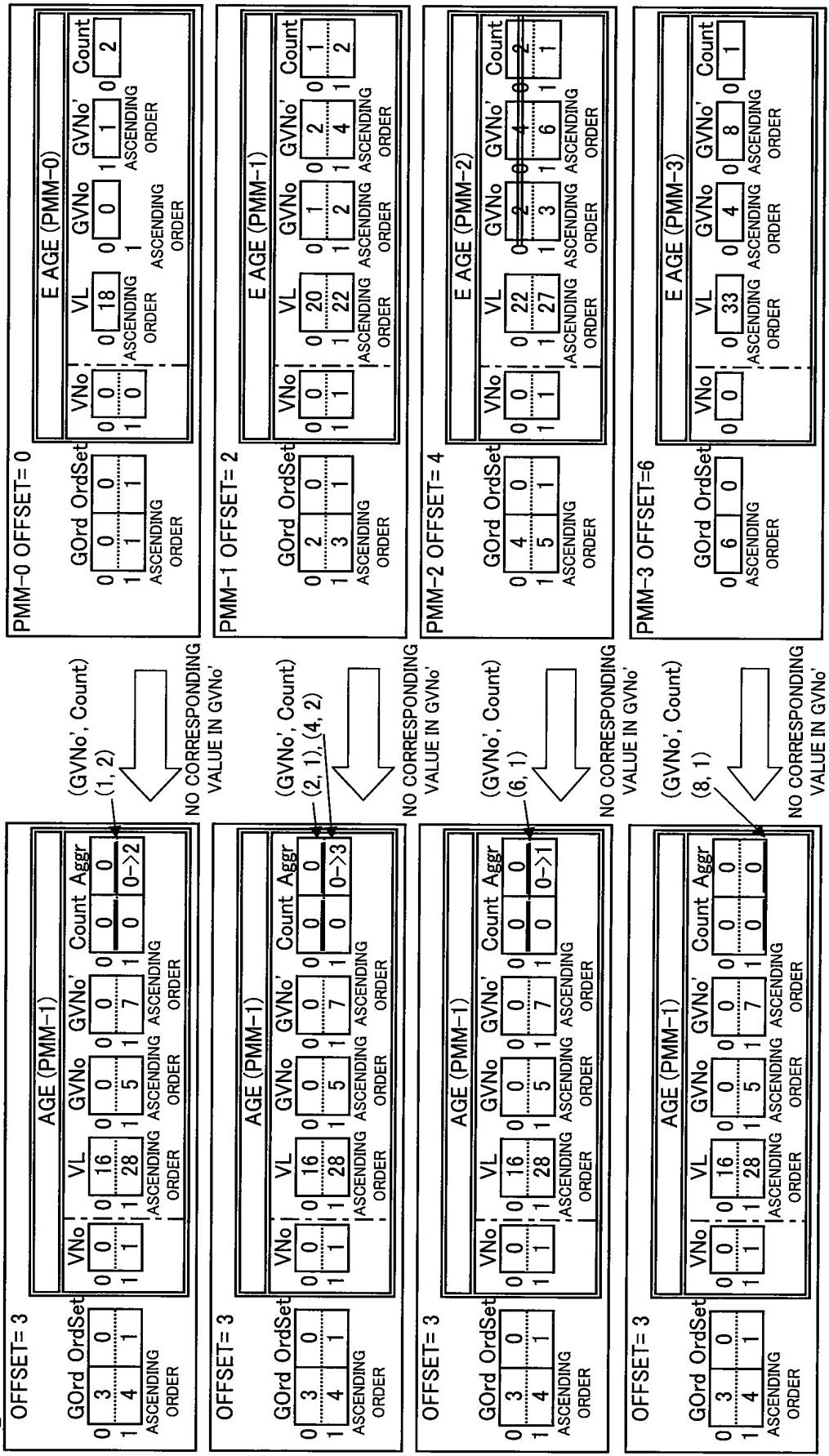


Fig.35

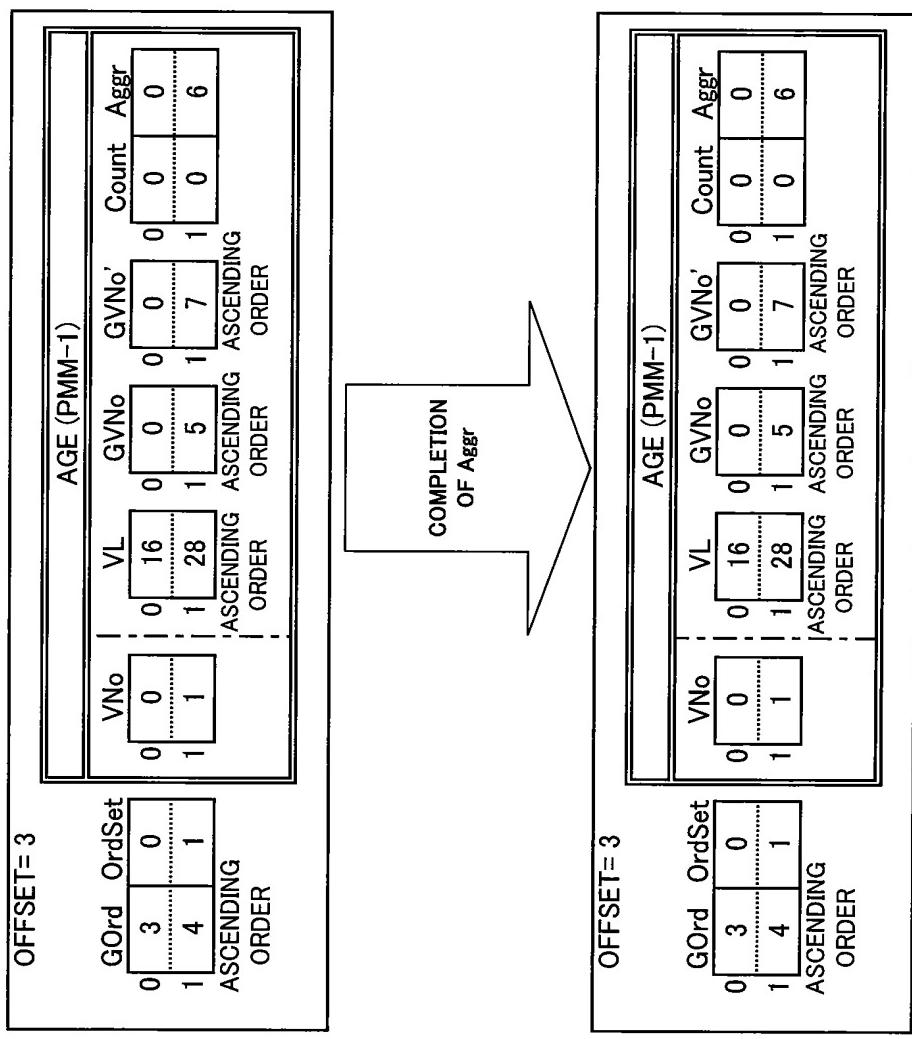


Fig.36

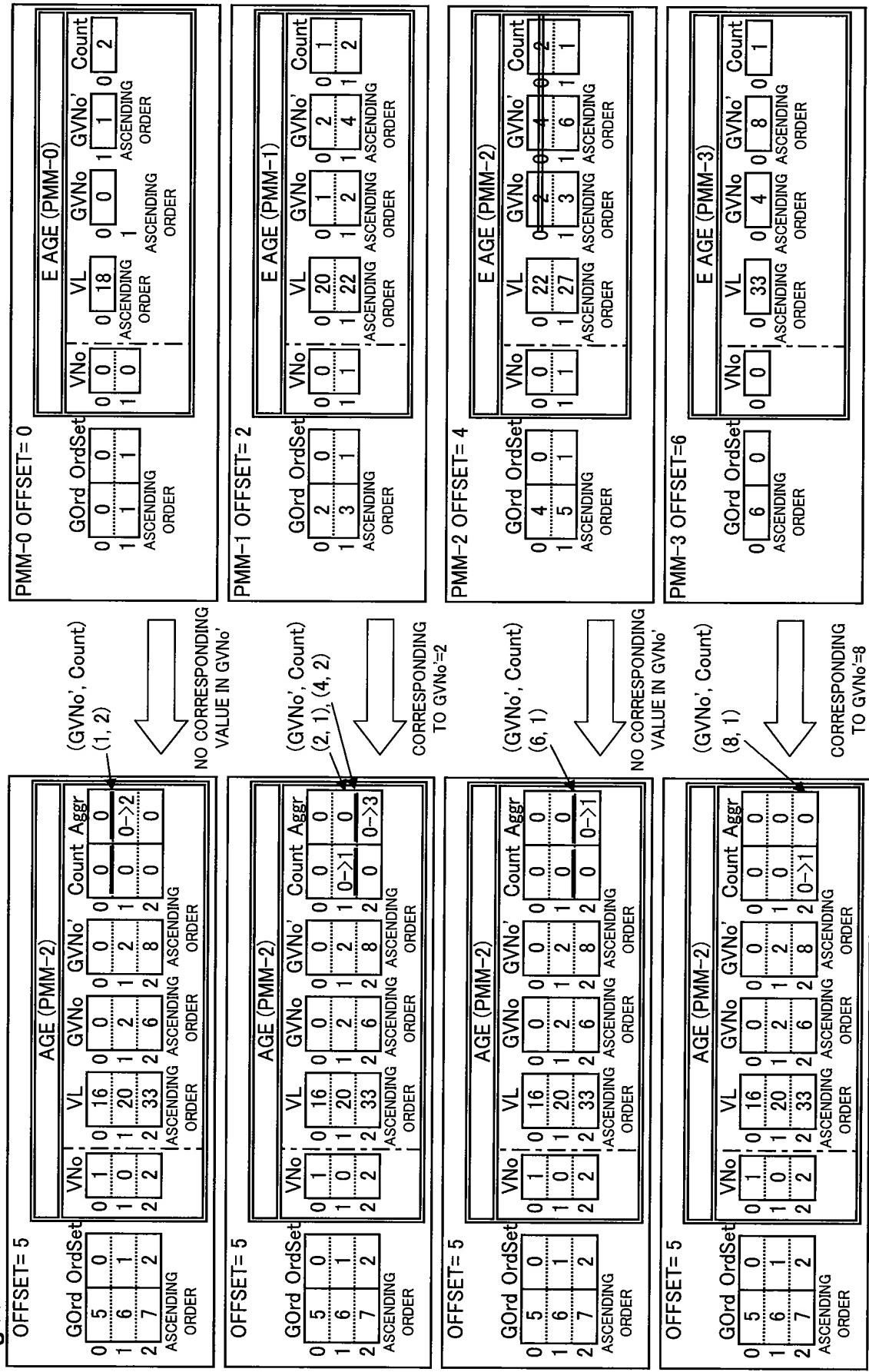


Fig.37

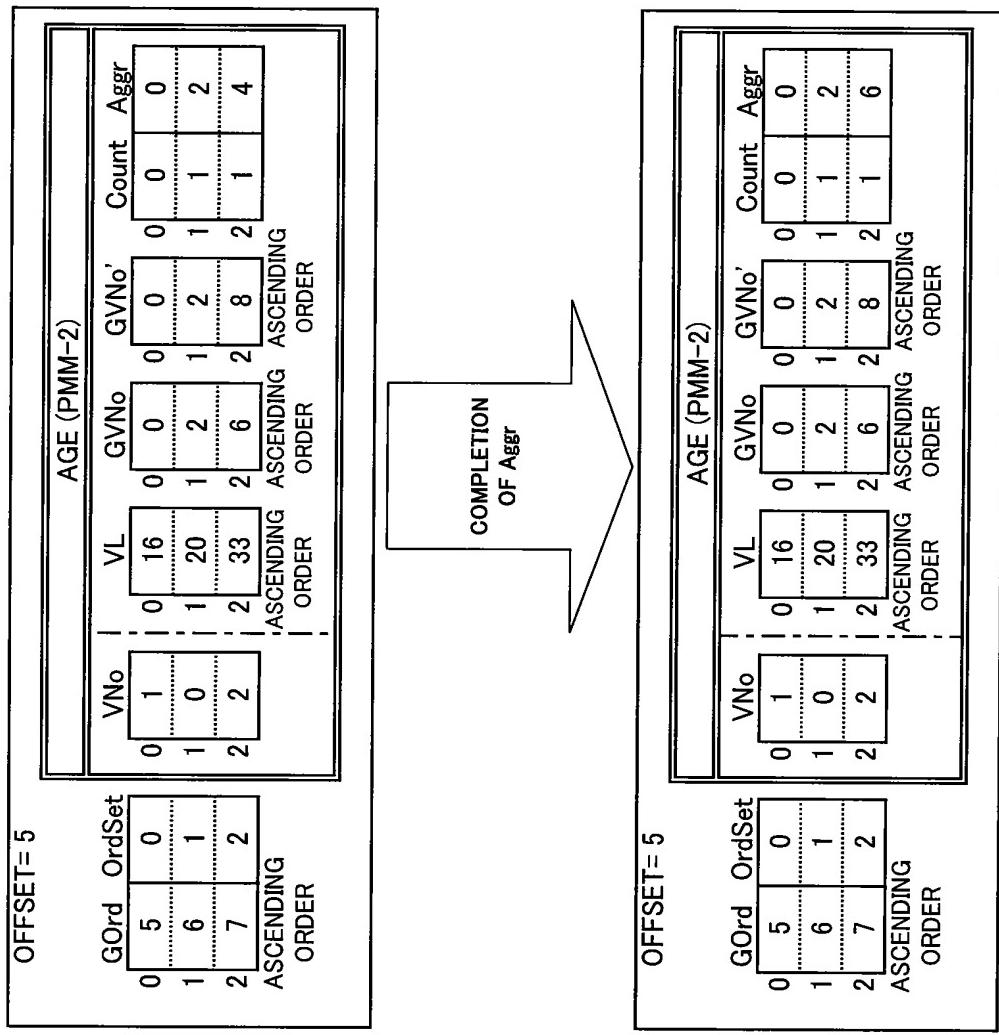


Fig.38

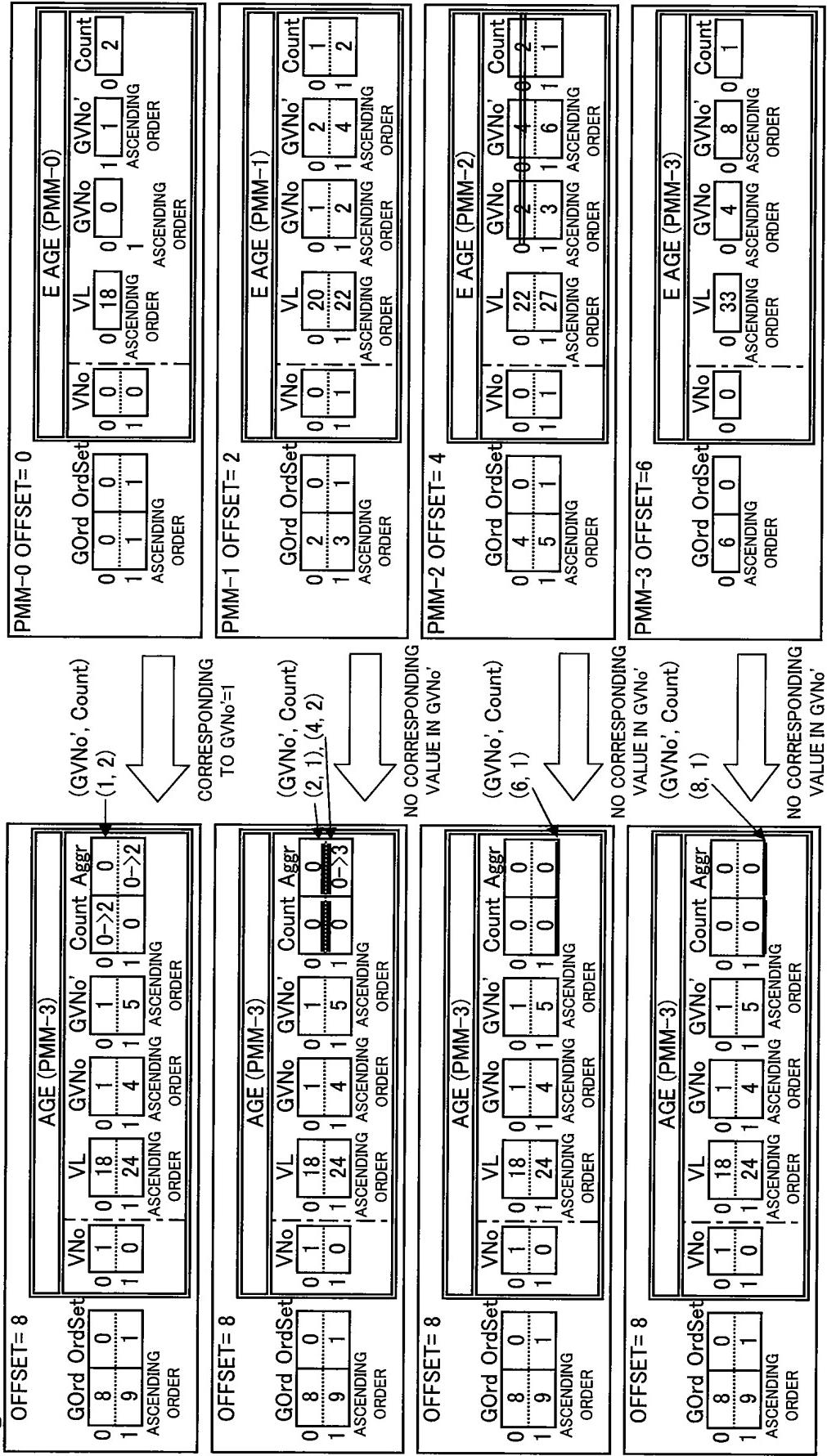


Fig.39

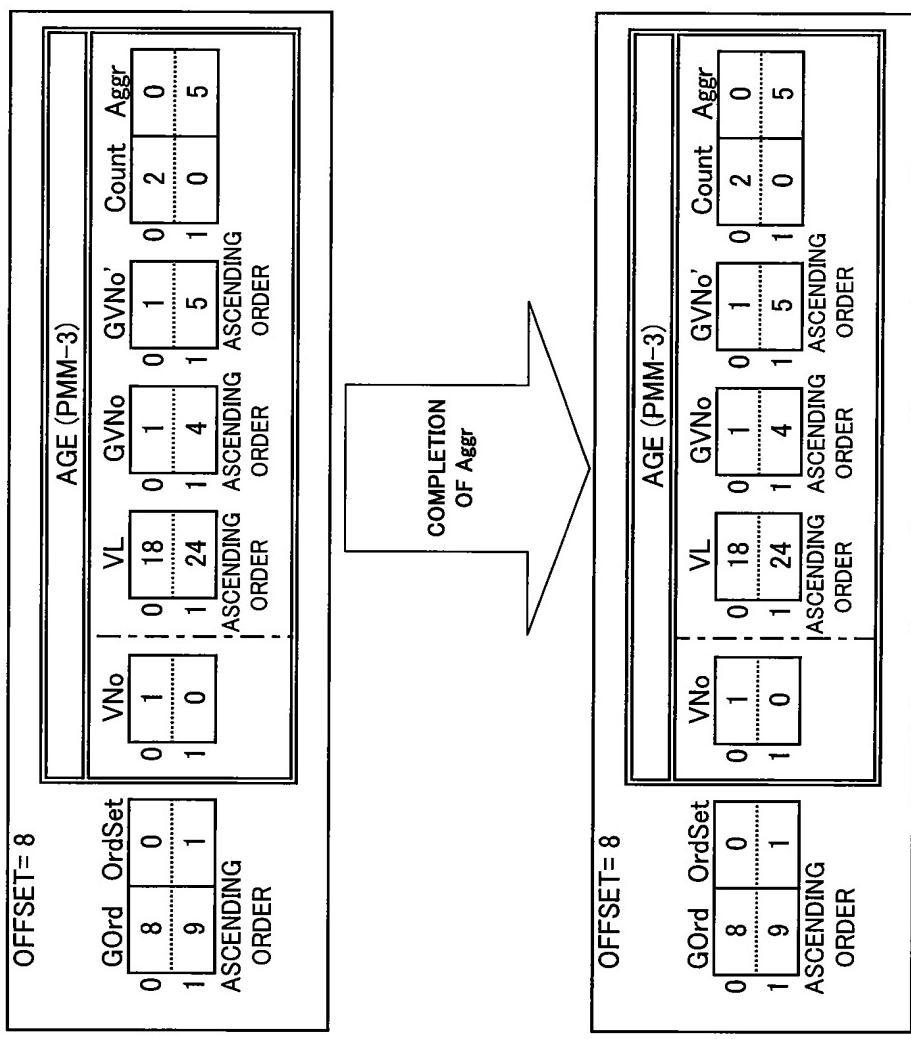


Fig. 40

Fig.41

PMM-0				
	SEX	AGE	HEIGHT	WEIGHT
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48

PMM-1				
	SEX	AGE	HEIGHT	WEIGHT
0	FEMALE	16	172	48
1	MALE	28	181	78

PMM-2				
	SEX	AGE	HEIGHT	WEIGHT
0	FEMALE	20	166	55
1	FEMALE	16	168	52
2	MALE	33	174	65

PMM-3				
	SEX	AGE	HEIGHT	WEIGHT
0	MALE	24	177	64
1	FEMALE	18	170	55

Fig.42

OFFSET= 0		E AGE (PMM-0)			EVENT (PMM-0)				
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	VNo	VL	GVNo
0	0	0	0	18	0	0	1	0	1
1	1	1	1	ASCENDING ORDER	1	ASCENDING ORDER	1	C1	0
								H2	1
									3
									ASCENDING ORDER

OFFSET= 2		E AGE (PMM-1)			EVENT (PMM-1)				
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	VNo	VL	GVNo
0	2	0	0	20	0	1	2	0	0
1	3	1	1	22	1	2	4	A	0
								C2	1
									2
									ASCENDING ORDER

OFFSET= 4		E AGE (PMM-2)			EVENT (PMM-2)				
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	VNo	VL	GVNo
0	4	0	0	22	0	2	4	0	5
1	5	1	1	27	1	3	6	P1	1
								P2	6
									ASCENDING ORDER

OFFSET= 6		E AGE (PMM-3)			EVENT (PMM-3)				
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	VNo	VL	GVNo
0	6	0	0	33	0	4	8	0	4
								M	ASCENDING ORDER

Fig.43

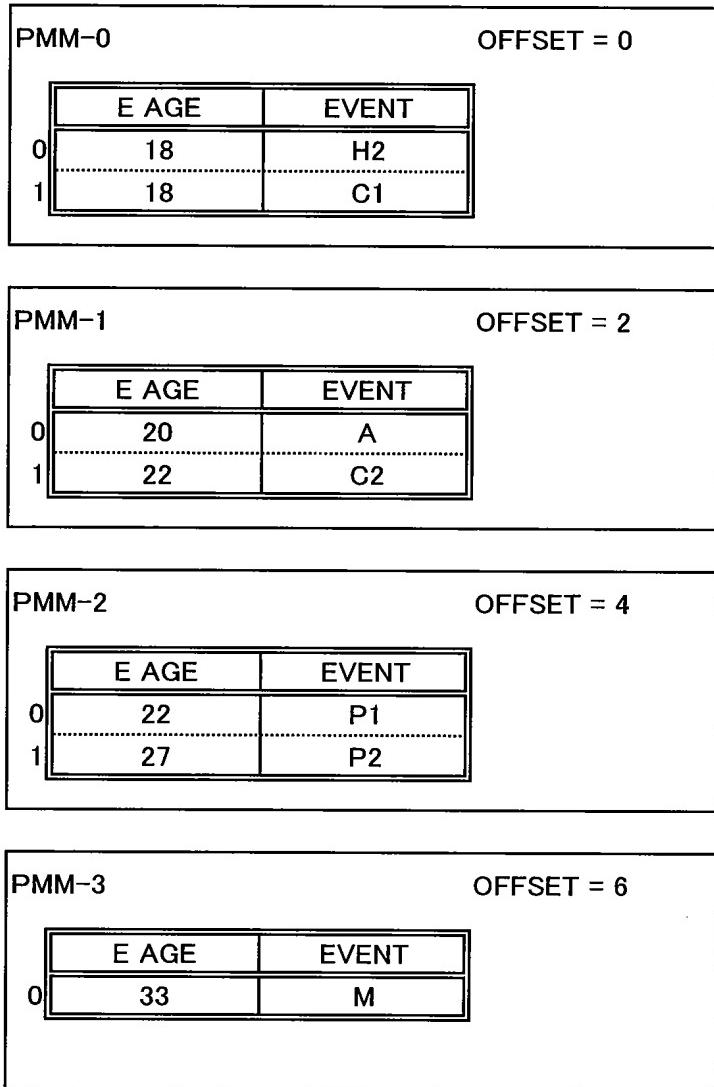


Fig.44

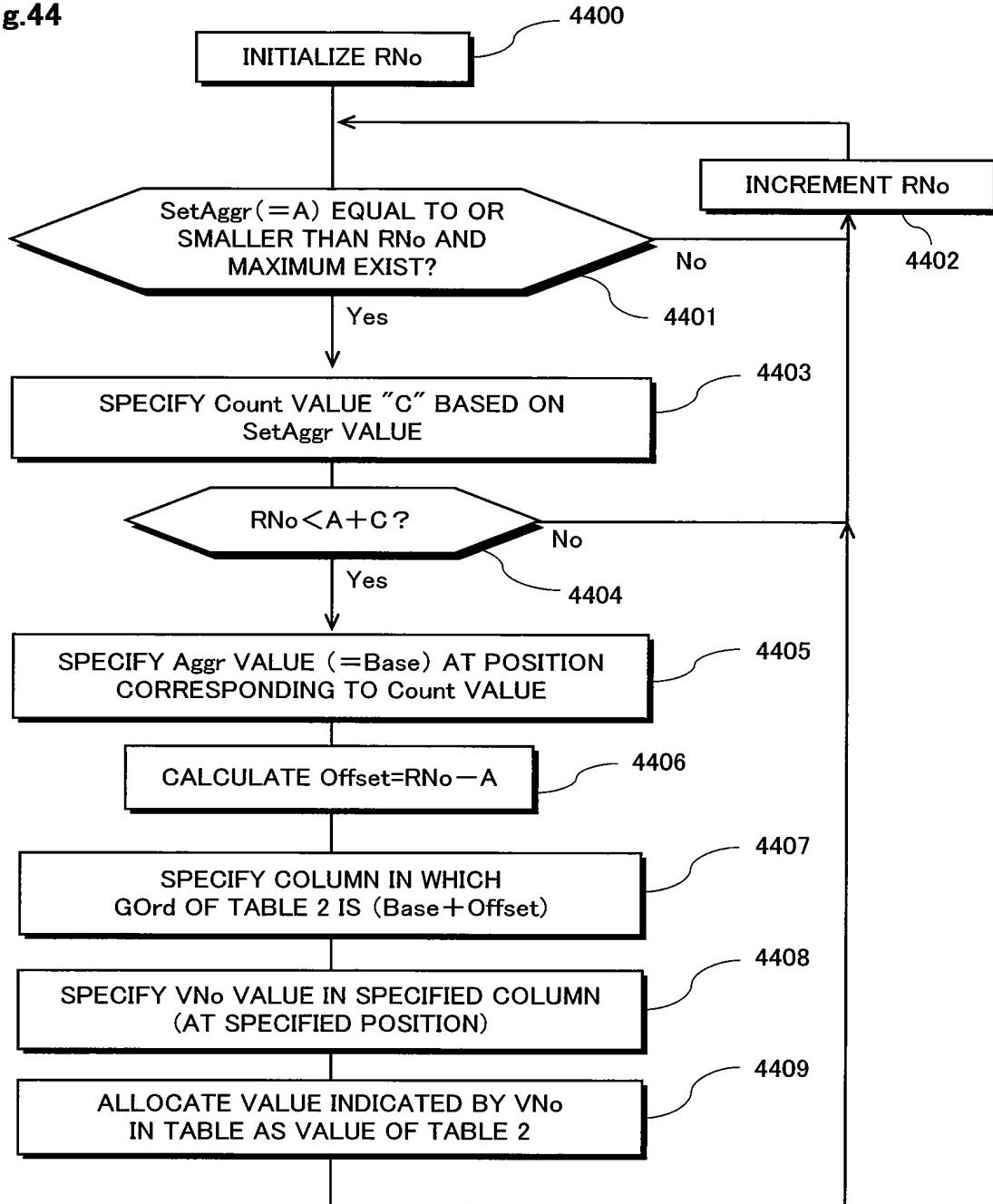


Fig.4.5
4401(yes)

TABLE 1				OFFSET= 0			
				AGE (PMM-0)			
SetAggr		GOrd	OrdSet	VL		GvNo	GvNo
0	0	0	0	0	18	0	1
1	2	1	1	1	21	1	3
2	2	2	2	2	24	2	4

ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER

SetAggr	GOrd	OrdSet	VL	GvNo	GvNo	Count	Aggr
0	0	0	0	1	1	2	0
1	2	1	1	3	3	0	3
2	2	2	2	4	5	0	5

ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER

4401(No)

4401(No)

OFFSET= 5		AGE (PMM-2)							
Set	Aggr	Ord	OrdSet	VNo	VL	GV/No	Gv/No	Count	Aggr
0	2	5	0	0	16	0	0	0	0
1	3	6	1	1	20	1	2	1	2
2	3	7	2	2	33	2	6	8	1
						ASCENDING	ASCENDING	ASCENDING	ORDER
						ORDER	ORDER	ORDER	ORDER

4401(No)

AGE (PMM-3)			
Set	Aggr	Ord	OrdSet
0	4	8	0
1	4	9	1

ASCENDING ORDER ASCENDING ORDER ORDER

TABLE 2

The diagram illustrates the structure of the AGE (PMM-0) record. It is composed of two main sections: GOrd OrdSet and AGE (PMM-0).

GOrd OrdSet:

- VL: 0
- GVNo: 0
- GVNo'Count: 1

AGE (PMM-0):

- VL: 18
- GVNo: 0
- GVNo'Count: 2

Both sections include an ORDER field indicating ASCENDING ORDER.

1

E AGE (PMM-1)		VL		GVNo		GVNo' Count	
GOrd	OrdSet	VNNo	VL	0	1	2	1
0	2	0	20	0	1	2	1
1	3	1	22	1	2	4	1
				ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER

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Fig. 48
4401(Yes)

AGE (PMM=0)			
VNo	VL	GVNo	Count
0	0	1	2
1	1	3	0
2	2	4	5

ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER

SetAggr	GOrd	OrdSet
0	0	0
1	2	1
2	(2)	2

ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER

TABLE 2

GOrd		OrdSet	VNo	VL	GvNo	GvNo'Count	
0	0	0	0	0	0	1	ASCENDING ORDER
	1	1	1	0	1	2	ASCENDING ORDER
1	0	0	0	18	1	1	ASCENDING ORDER
	1	1	1	0	0	1	ASCENDING ORDER
E AGE (PMM-0)							

4401(Yes)

GOrd		OrdSet	VNo	VL	GvNo	GvNo's Count
0	2	0	0	0	0	1
	1	3	1	1	2	1
1	2	0	0	20	1	1
	3	1	1	22	2	4
					ASCENDING ORDER	ASCENDING ORDER
					ASCENDING ORDER	ASCENDING ORDER

4401(Yes)

E AGE (PMM-2)		VNo	VL	GVNo GVNo' Count		ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER
GOrd	OrdSet			0	22			
0	4	0	0	1	27	0	2	1
1	5	1	1	1	3	1	6	1

4401(No)

The diagram illustrates the structure of the AGE (PMM-3) record. It consists of several fields:

- GVNo**: A primary key field.
- VL**: A field with a value of 033.
- GVNo GVNo Count**: A field containing 0481.
- ASCENDING ORDER**: An indicator for the VL field.
- ASCENDING ORDER**: An indicator for the GVNo GVNo Count field.
- GOrd OrdSet**: A field with a value of 060.
- ASCENDING ORDER**: An indicator for the GOrd OrdSet field.
- 00**: A value indicating the count of records.

TABLE 1

GOrd		OrdSet	VNo	VL	GvNo	GvNo'Count	
0	0	0	0	0	0	0	ASCENDING ORDER
	1	1	1	0	18	1	ASCENDING ORDER
1	0	0	0	1	0	1	ASCENDING ORDER
	1	1	1	0	2	2	ASCENDING ORDER

Fig.49
4401(Yes)

TABLE 2

AGE (PMM-0)			
VNo	VL	GVNo	Count Aggr
0 0	0 18	0 1	2 0
1 1	1 21	1 3	3 0
2 2	2 24	2 4	5 0

ASCENDING ORDER
ASCENDING ORDER

4401(Yes)

AGE (PMM-1)			
VNo	VL	GVNo	Count Aggr
0 0	0 16	0 0	0 0
1 1	1 28	1 5	7 0

ASCENDING ORDER
ASCENDING ORDER

4401(Yes)

AGE (PMM-2)			
VNo	VL	GVNo	Count Aggr
0 1	0 16	0 0	0 0
1 0	1 20	1 2	2 1
2 2	2 33	2 6	8 1

ASCENDING ORDER
ASCENDING ORDER

4401(Yes)

AGE (PMM-3)			
VNo	VL	GVNo	Count Aggr
0 1	0 18	0 1	1 0
1 0	1 24	1 4	5 0

ASCENDING ORDER
ASCENDING ORDER

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E AGE (PMM-0)			
VNo	VL	GVNo	No' Count
0 0	0 18	0 0	1 2
1 0	1 0	1 0	1 ASCENDING ORDER

ASCENDING ORDER
ASCENDING ORDER

E AGE (PMM-1)			
VNo	VL	GVNo	No' Count
0 0	0 20	0 1	2 1
1 1	1 22	1 2	4 1

ASCENDING ORDER
ASCENDING ORDER

E AGE (PMM-2)			
VNo	VL	GVNo	No' Count
0 0	0 22	0 2	4 1
1 1	1 27	1 3	6 1

ASCENDING ORDER
ASCENDING ORDER

E AGE (PMM-3)			
VNo	VL	GVNo	No' Count
0 0	0 33	0 4	8 1

ASCENDING ORDER
ASCENDING ORDER

Fig.50
4401(Yes)

TABLE 1
OFFSET= 0

SetAggr GOrd OrdSet			AGE (PMM-0)		
VNo	VL	GVNo	Count	Aggr	
0 0	0 18	0 1	1	2	0
1 1	1 21	1 3	3	0	3

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

TABLE 2
E AGE (PMM-0)

GOrd OrdSet			E AGE (PMM-0)		
VNo	VL	GVNo	Count	Aggr	
0 0	0 18	0 0	1	2	0
1 0	1 0	1 0	0	1	2

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

4401(Yes)
OFFSET= 3

SetAggr GOrd OrdSet			AGE (PMM-1)		
VNo	VL	GVNo	Count	Aggr	
0 0	0 16	0 0	0	0	0
1 1	1 28	1 5	7	0	6

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

TABLE 2
E AGE (PMM-1)

GOrd OrdSet			E AGE (PMM-1)		
VNo	VL	GVNo	Count	Aggr	
0 0	0 20	0 1	1	2	1
1 1	1 22	1 2	4	1	1

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

4401(Yes)
OFFSET= 5

SetAggr GOrd OrdSet			AGE (PMM-2)		
VNo	VL	GVNo	Count	Aggr	
0 1	0 16	0 0	0	0	0
1 0	1 20	1 2	2	1	2

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

TABLE 2
E AGE (PMM-2)

GOrd OrdSet			E AGE (PMM-2)		
VNo	VL	GVNo	Count	Aggr	
0 0	0 22	0 2	4	1	1
1 1	1 27	1 3	6	1	1

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

4401(Yes)
OFFSET= 8

SetAggr GOrd OrdSet			AGE (PMM-3)		
VNo	VL	GVNo	Count	Aggr	
0 1	0 18	0 1	1	2	0
1 0	1 24	1 4	5	0	0

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

TABLE 2
E AGE (PMM-3)

GOrd OrdSet			E AGE (PMM-3)		
VNo	VL	GVNo	Count	Aggr	
0 0	0 33	0 4	8	1	1
1 6	1 0	1 2	4	1	1

ASCENDING ORDER
ASCENDING ORDER
ASCENDING ORDER

Fig.51A

●RECORD OF JOIN TABLE = 0

TABLE 1				TABLE 2	
SEX	AGE	HEIGHT	WEIGHT	E AGE	EVENT
0 FEMALE	18	168	55	0	H2

Fig.51B

●RECORD OF JOIN TABLE = 1

TABLE 1				TABLE 2	
SEX	AGE	HEIGHT	WEIGHT	E AGE	EVENT
0 FEMALE	18	168	55	1	C1

Fig.51C

●RECORD OF JOIN TABLE = 2

TABLE 1				TABLE 2	
SEX	AGE	HEIGHT	WEIGHT	E AGE	EVENT
5 FEMALE	20	166	55	2	A

Fig.51D

●RECORD OF JOIN TABLE = 3

TABLE 1				TABLE 2	
SEX	AGE	HEIGHT	WEIGHT	E AGE	EVENT
7 MALE	33	174	65	6	M

Fig.51E

●RECORD OF JOIN TABLE = 4

TABLE 1				TABLE 2	
SEX	AGE	HEIGHT	WEIGHT	E AGE	EVENT
9 FEMALE	18	170	55	0	H2

Fig.51F

●RECORD OF JOIN TABLE = 5

TABLE 1				TABLE 2	
SEX	AGE	HEIGHT	WEIGHT	E AGE	EVENT
9 FEMALE	18	170	55	1	C1

Fig.52

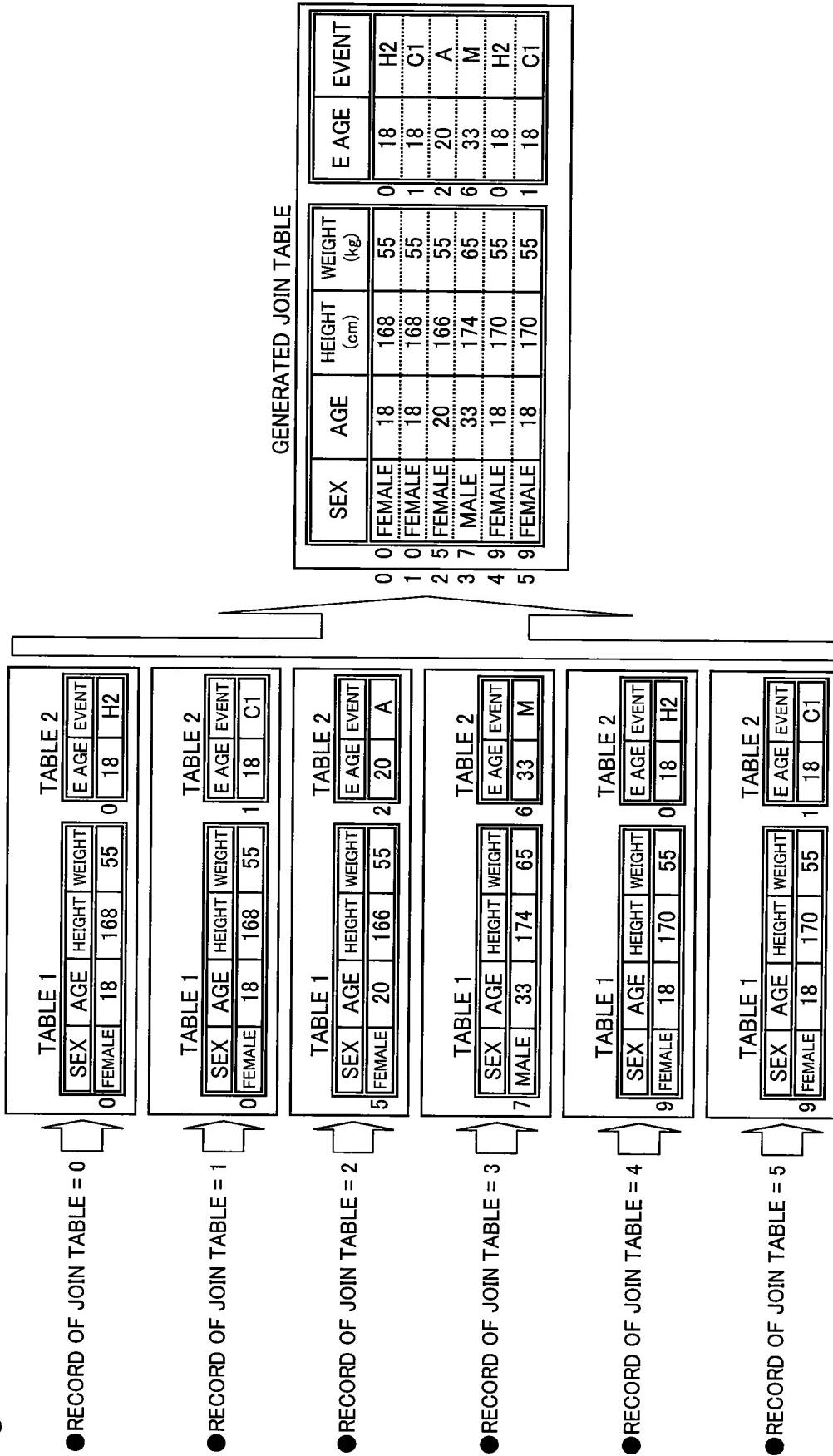


Fig.53

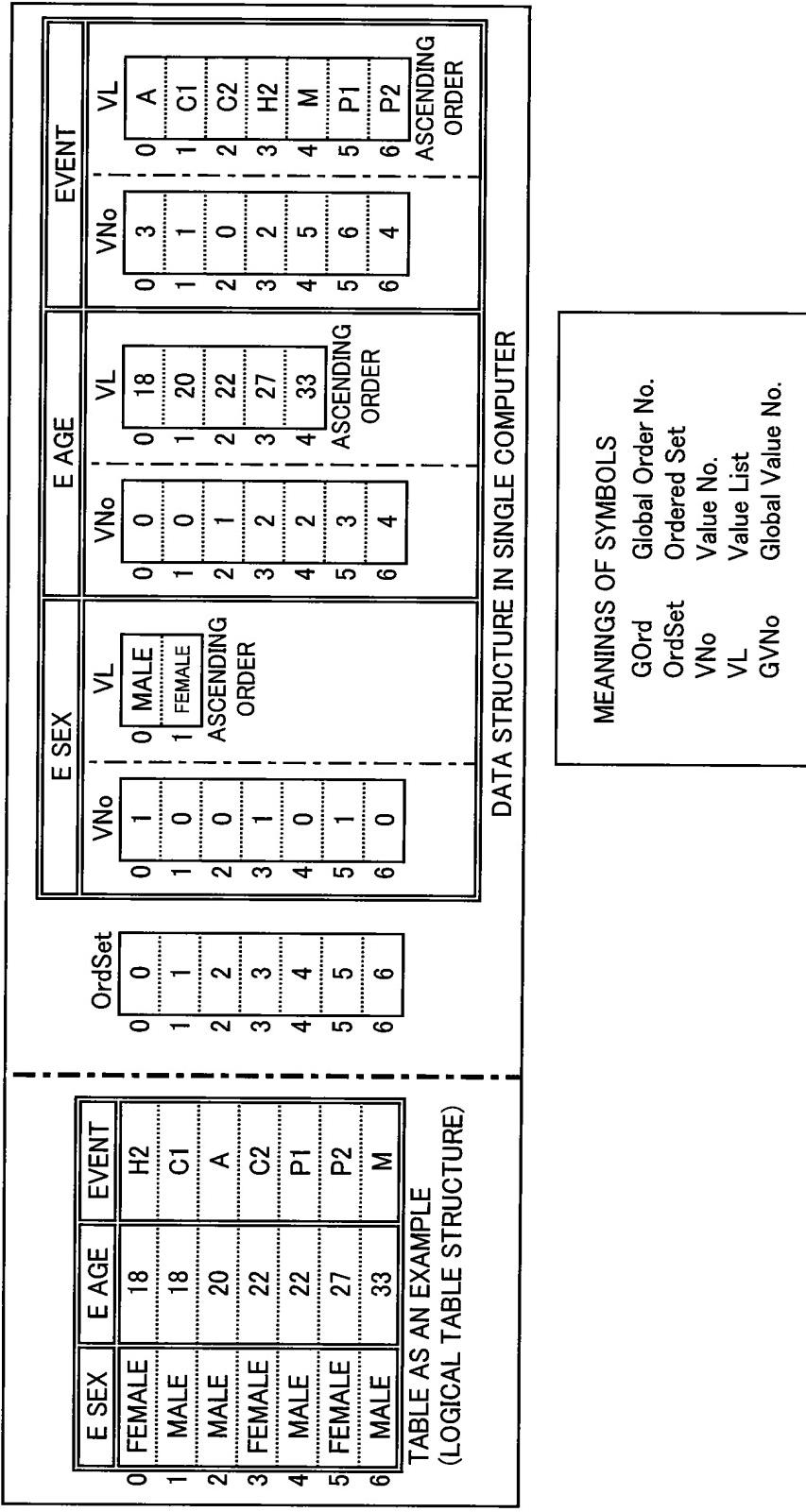


Fig.54

PMM-0			OFFSET = 0
	E SEX	E AGE	EVENT
0	FEMALE	18	H2
1	MALE	18	C1

PMM-1			OFFSET = 2
	E SEX	E AGE	EVENT
0	MALE	20	A
1	FEMALE	22	C2

PMM-2			OFFSET = 4
	E SEX	E AGE	EVENT
0	MALE	22	P1
1	FEMALE	27	P2

PMM-3			OFFSET = 6
	E SEX	E AGE	EVENT
0	MALE	33	M

Fig 55

OFFSET=0		E SEX (PMM-0)		E AGE(PMM-0)		EVENT (PMM-0)	
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo
0	0	0	0	MALE	0	1	0
1	1	1	1	FEMALE	1	0	1
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

OFFSET=2		E SEX (PMM-1)		E AGE (PMM-1)		EVENT (PMM-1)	
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo
0	2	0	0	MALE	0	20	0
1	3	1	1	FEMALE	1	22	1
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

OFFSET=4		E SEX (PMM-2)		E AGE (PMM-2)		EVENT (PMM-2)	
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo
0	4	0	0	MALE	0	22	0
1	5	1	1	FEMALE	1	27	1
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

OFFSET=6		E SEX(PMM-3)		E AGE (PMM-3)		EVENT (PMM-3)	
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo
0	6	0	0	MALE	0	4	0
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.56

TABLE 1

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48
3	FEMALE	16	172	48
4	MALE	28	181	78
5	FEMALE	20	166	55
6	FEMALE	16	168	52
7	MALE	33	174	65
8	MALE	24	177	64
9	FEMALE	18	170	55

TABLE 2

	E SEX	E AGE	EVENT
0	FEMALE	18	H2
1	MALE	18	C1
2	MALE	20	A
3	FEMALE	22	C2
4	MALE	22	P1
5	FEMALE	27	P2
6	MALE	33	M



GENERATED JOIN TABLE

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)	E SEX	E AGE	EVENT
0	0 FEMALE	18	168	55	0 FEMALE	18	H2
1	7 MALE	33	174	65	6 MALE	33	M
2	9 FEMALE	18	170	55	0 FEMALE	18	H2

Fig.57

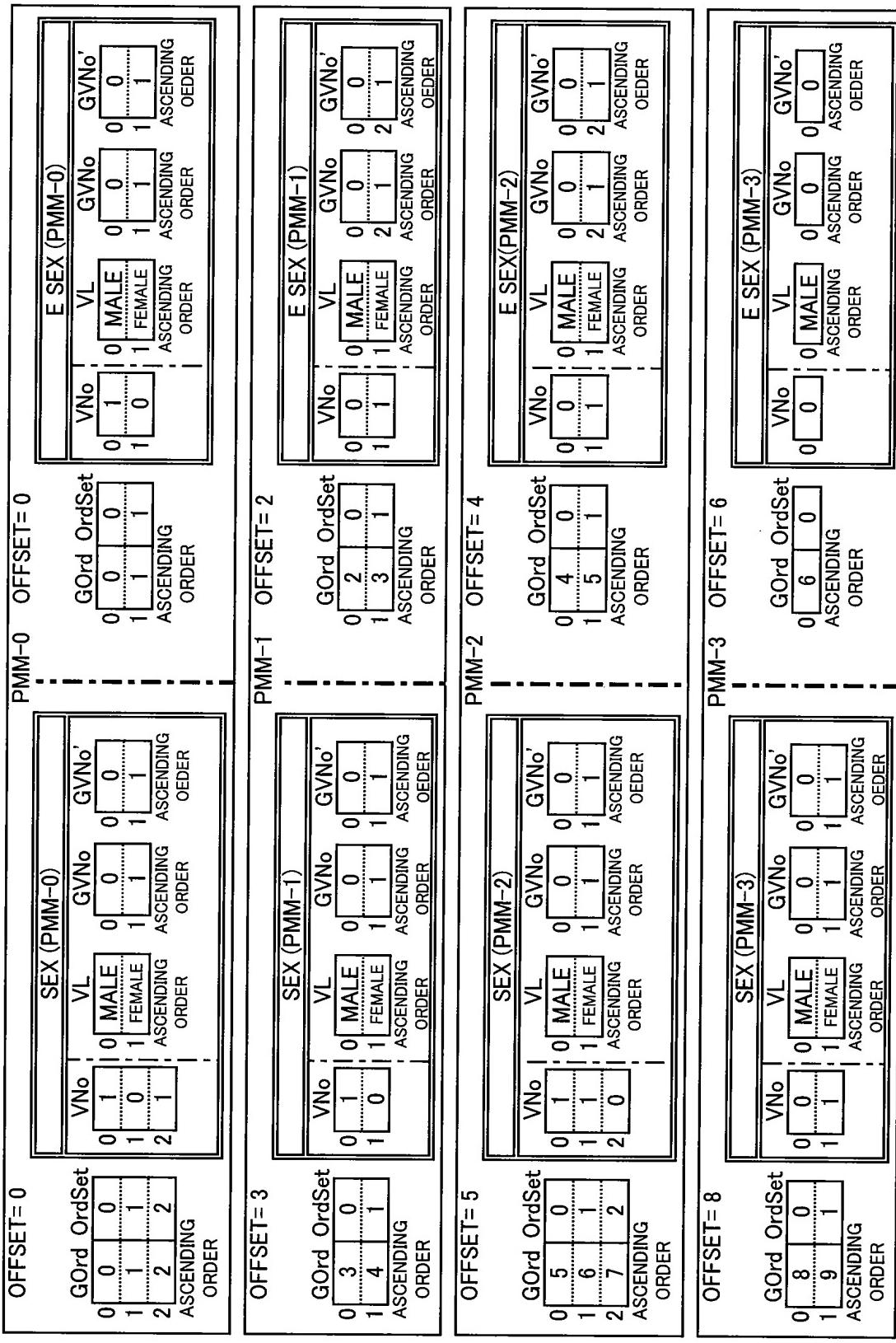


Fig. 58

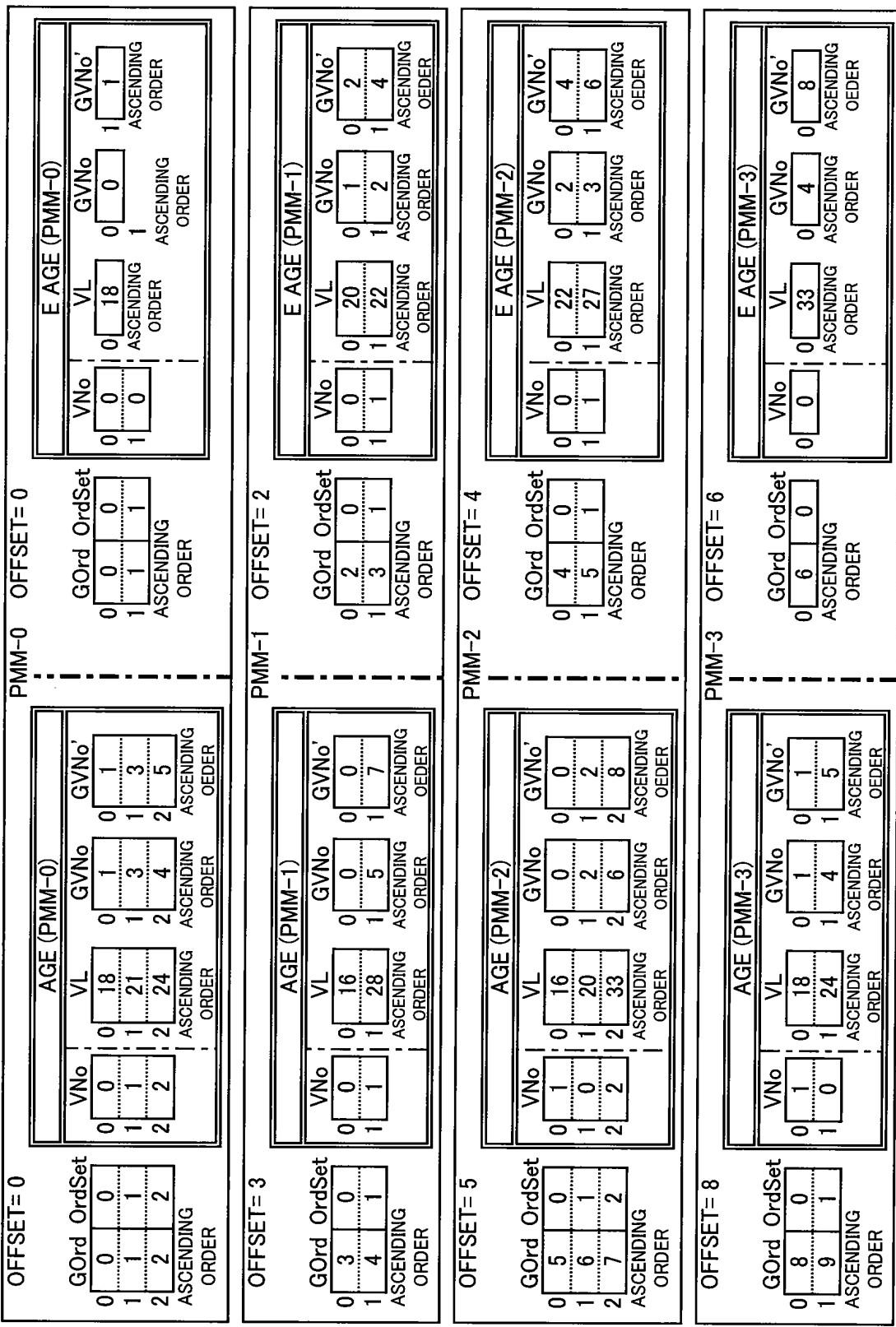


Fig.59

PMM-0		OFFSET= 0		SEX (PMM-0)		AGE (PMM-0)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	0	0	0	MALE	0	0	0
1	1	1	1	FEMALE	1	1	1
2	2	2	2	ASCENDING ORDER	ASCENDING ORDER	2	2
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-1		OFFSET= 3		SEX (PMM-1)		AGE (PMM-1)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	3	0	0	MALE	0	0	0
1	4	1	1	FEMALE	1	1	1
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-2		OFFSET= 5		SEX (PMM-2)		AGE (PMM-2)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	5	0	0	MALE	0	0	0
1	6	1	1	FEMALE	1	1	1
2	7	2	2	ASCENDING ORDER	ASCENDING ORDER	2	2
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-3		OFFSET= 8		SEX (PMM-3)		AGE (PMM-3)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	8	0	0	MALE	0	0	0
1	9	1	1	FEMALE	1	1	1
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.60

PMM-0		OFFSET= 0		E SEX (PMM-0)		E AGE (PMM-0)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	0	0	0	MALE	0	0	18
1	1	1	1	FEMALE	1	1	0
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-1		OFFSET= 2		E SEX (PMM-1)		E AGE (PMM-1)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	2	0	0	MALE	0	0	20
1	3	1	1	FEMALE	2	1	1
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-2		OFFSET= 4		E SEX (PMM-2)		E AGE (PMM-2)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	4	0	0	MALE	0	0	22
1	5	1	1	FEMALE	2	1	1
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-3		OFFSET= 6		E SEX (PMM-3)		E AGE (PMM-3)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL
0	6	0	0	MALE	0	0	33
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.61

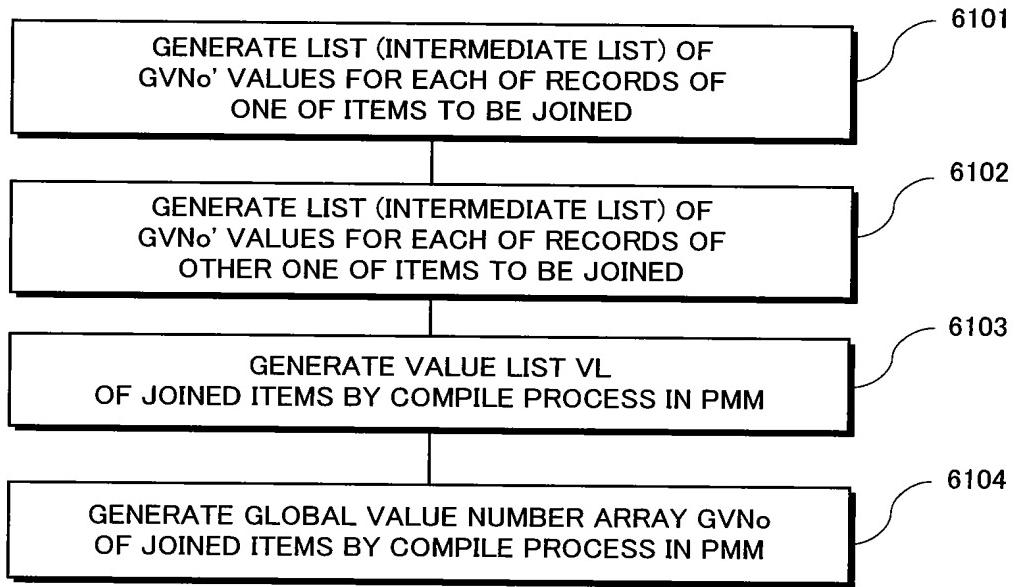


Fig. 62

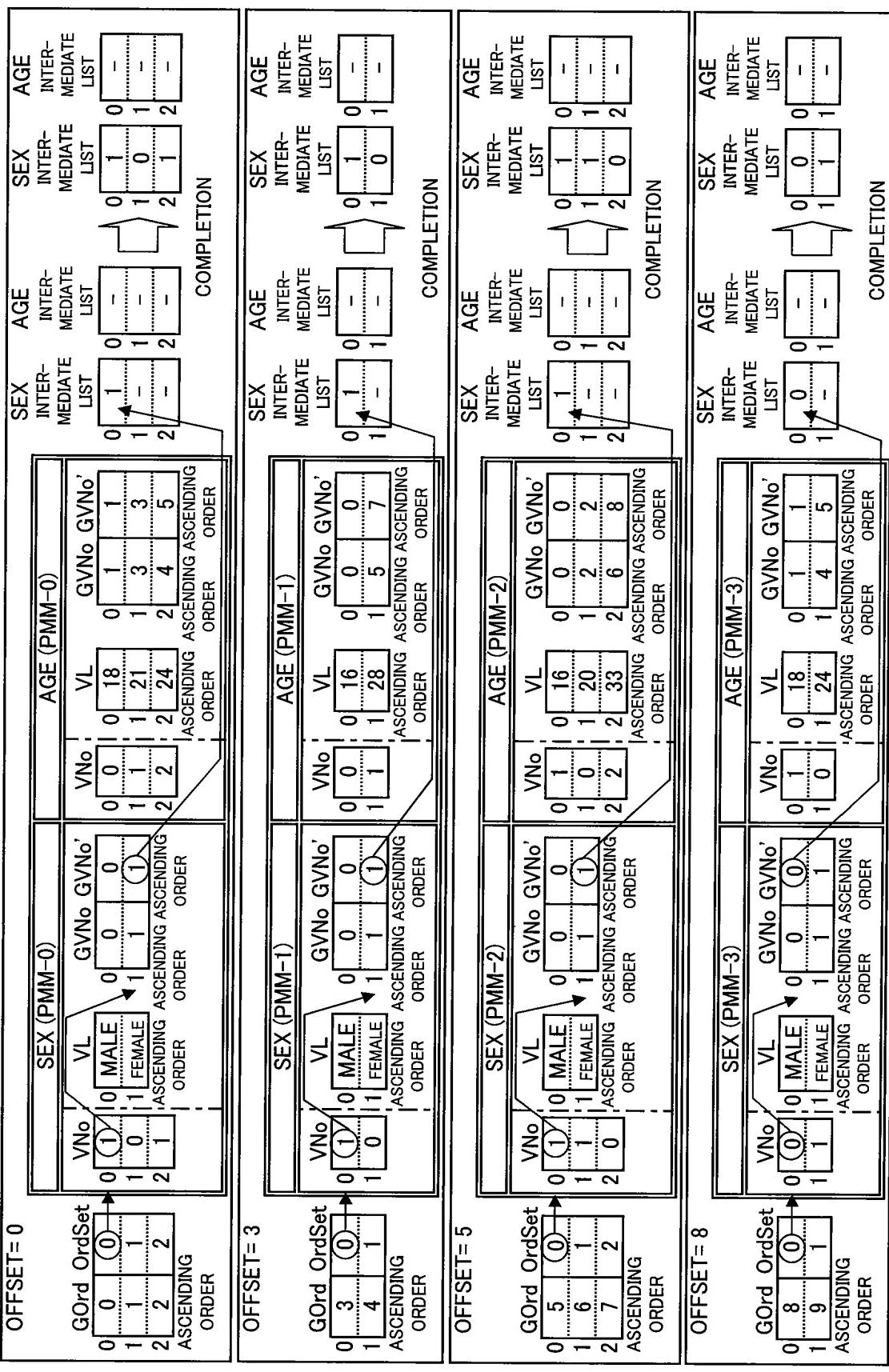


Fig.63

OFFSET= 0		SEX (PMM-0)		AGE (PMM-0)		SEX (PMM-0)		AGE (PMM-0)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL	GVNo	GVNo'
0	0	0	0	MALE	0	0	0	1	1
1	1	1	1	FEMALE	1	1	1	2	3
2	2	2	2	'ASCENDING ORDER	1	2	2	4	5
ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER	
OFFSET= 3		SEX (PMM-1)		AGE (PMM-1)		SEX (PMM-1)		AGE (PMM-1)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL	GVNo	GVNo'
0	3	0	0	MALE	0	0	0	0	0
1	4	1	1	FEMALE	1	1	1	5	7
2	5	2	2	'ASCENDING ORDER	1	2	2	6	8
3	6	3	3	'ASCENDING ORDER	1	2	2	7	9
4	7	4	4	'ASCENDING ORDER	1	2	2	8	10
5	8	5	5	'ASCENDING ORDER	1	2	2	9	11
ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER	
OFFSET= 5		SEX (PMM-2)		AGE (PMM-2)		SEX (PMM-2)		AGE (PMM-2)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL	GVNo	GVNo'
0	5	0	0	MALE	0	0	0	0	0
1	6	1	1	FEMALE	1	1	1	2	2
2	7	2	2	'ASCENDING ORDER	1	2	2	6	8
3	8	3	3	'ASCENDING ORDER	1	2	2	7	9
4	9	4	4	'ASCENDING ORDER	1	2	2	8	10
5	10	5	5	'ASCENDING ORDER	1	2	2	9	11
ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER	
OFFSET= 8		SEX (PMM-3)		AGE (PMM-3)		SEX (PMM-3)		AGE (PMM-3)	
GOrd	OrdSet	VNo	VL	GVNo	GVNo'	VNo	VL	GVNo	GVNo'
0	8	0	0	MALE	0	0	0	1	1
1	9	1	1	FEMALE	1	1	1	2	2
2	10	2	2	'ASCENDING ORDER	1	2	2	7	9
3	11	3	3	'ASCENDING ORDER	1	2	2	8	10
4	12	4	4	'ASCENDING ORDER	1	2	2	9	11
5	13	5	5	'ASCENDING ORDER	1	2	2	10	12
ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER		'ASCENDING ORDER	

Fig.64

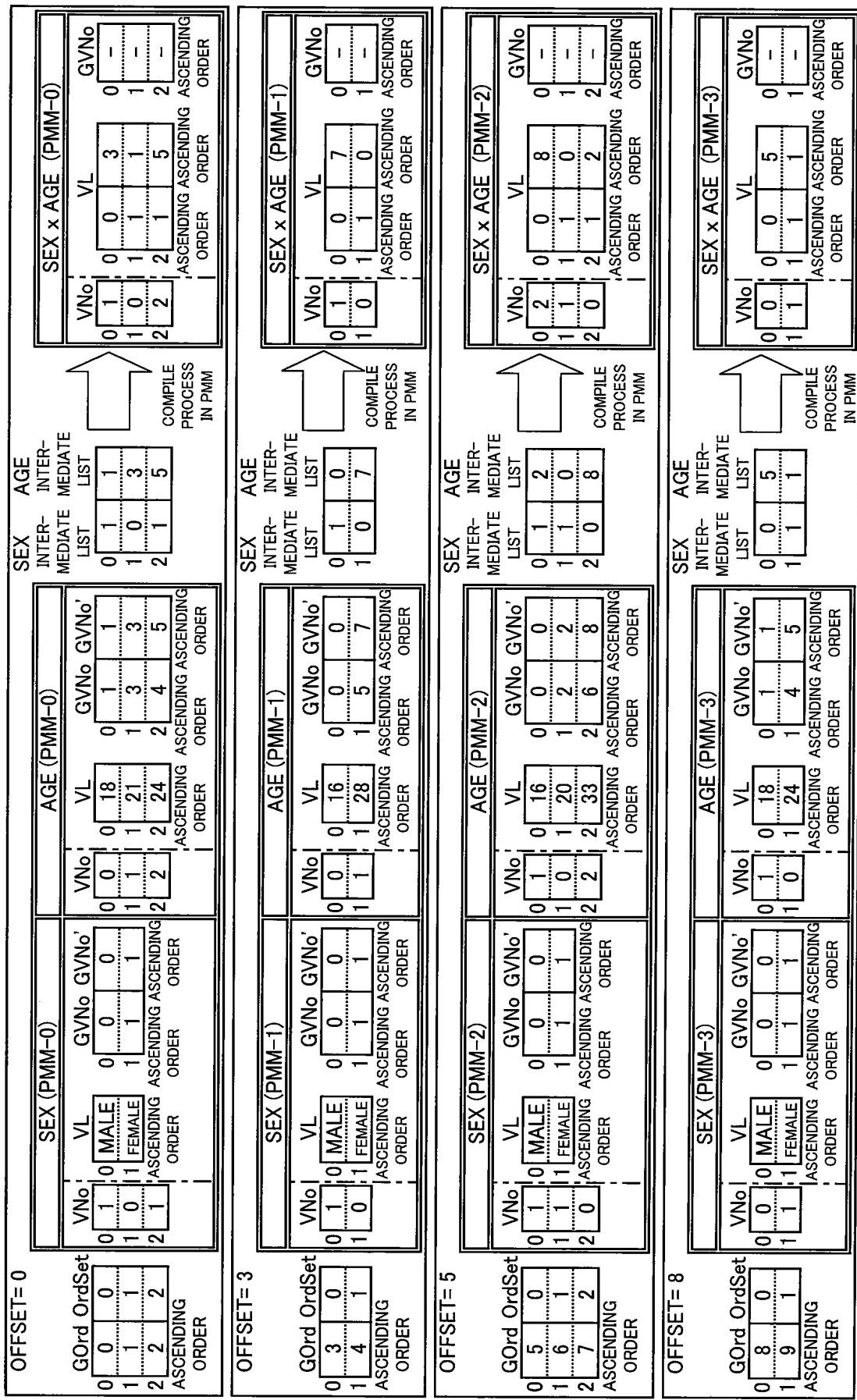


Fig.65

SEX x AGE (PMM-0)		
VNo	VL	GVNo
0 1	0 0 3	0 0
1 0	1 1 1	1 5
2 2	2 1 5	2 7
	ASCENDING ORDER	ASCENDING ORDER
	ASCENDING ORDER	ASCENDING ORDER

SEX x AGE (PMM-1)		
VNo	VL	GVNo
0 1	0 0 7	0 2
1 0	1 1 0	1 4
	ASCENDING ORDER	ASCENDING ORDER
	ASCENDING ORDER	ASCENDING ORDER

SEX x AGE (PMM-2)		
VNo	VL	GVNo
0 2	0 0 8	0 3
1 1	1 1 0	1 4
2 0	2 1 2	2 6
	ASCENDING ORDER	ASCENDING ORDER
	ASCENDING ORDER	ASCENDING ORDER

SEX x AGE (PMM-3)		
VNo	VL	GVNo
0 0	0 0 5	0 1
1 1	1 1 1	1 5
	ASCENDING ORDER	ASCENDING ORDER
	ASCENDING ORDER	ASCENDING ORDER

Fig.66

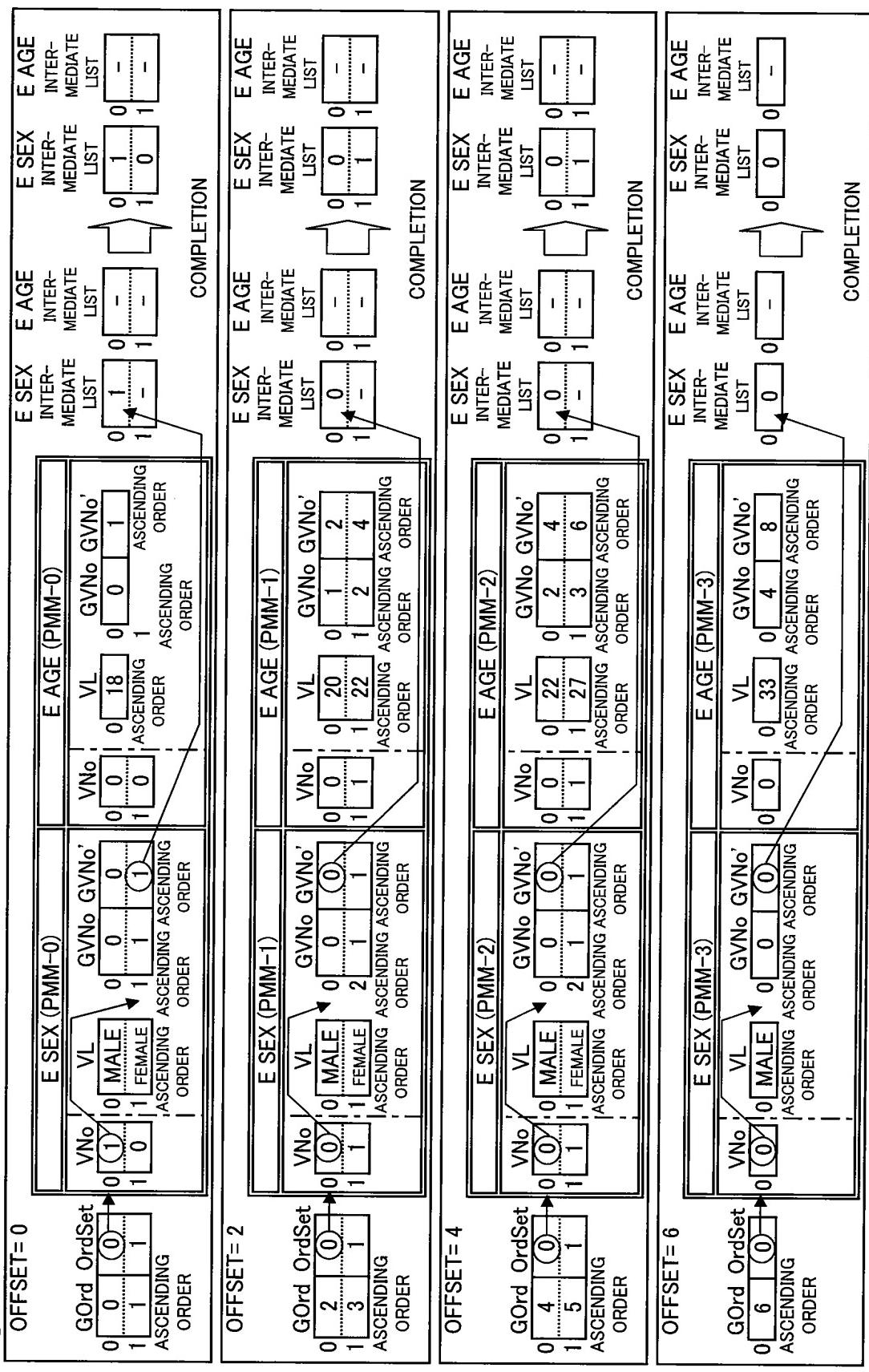


Fig.67

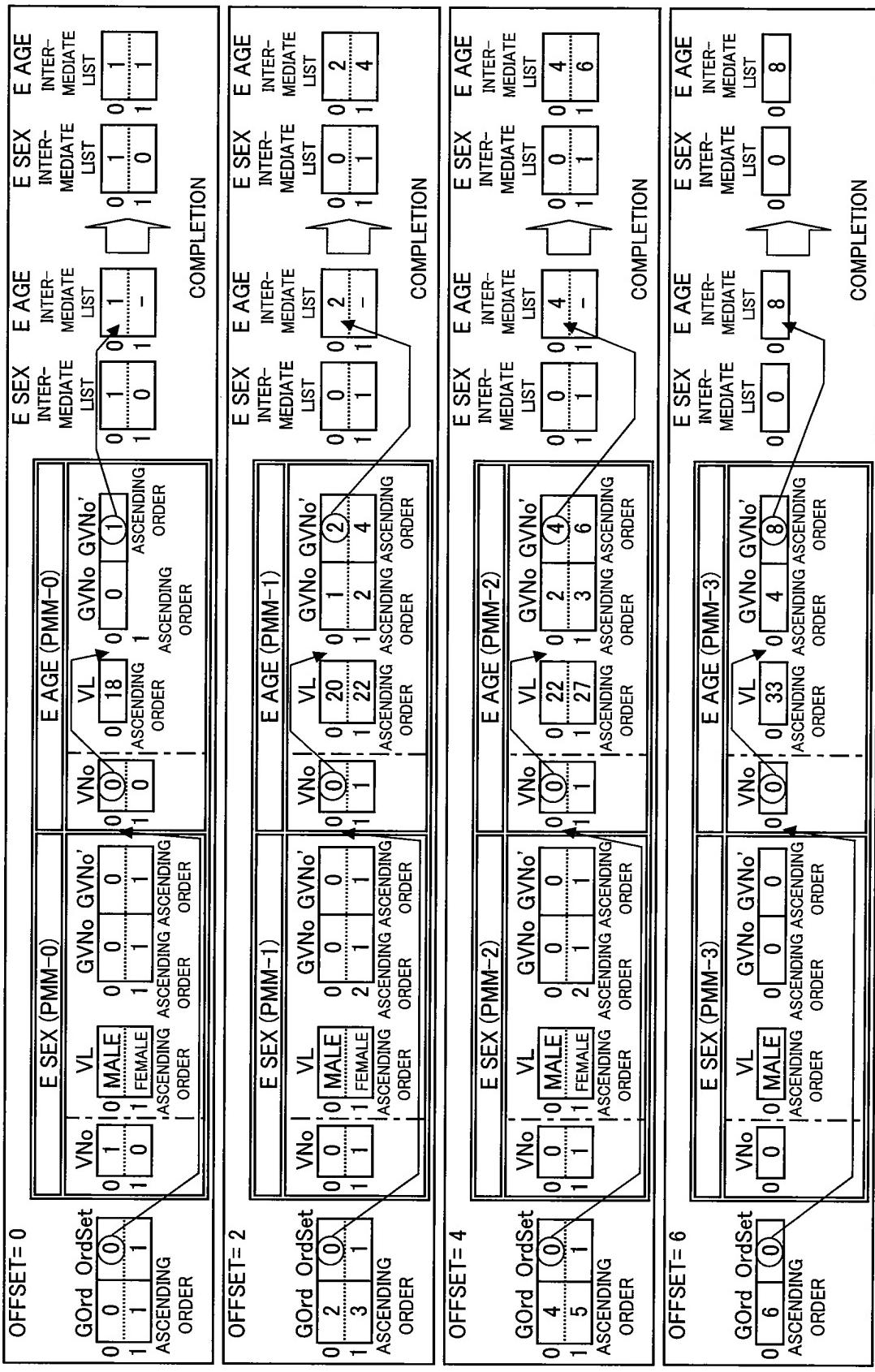


Fig.68

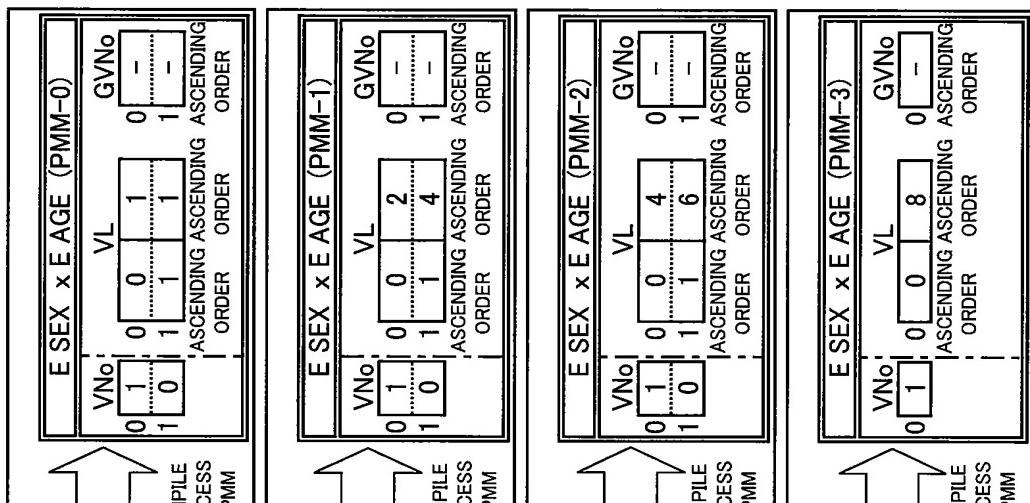
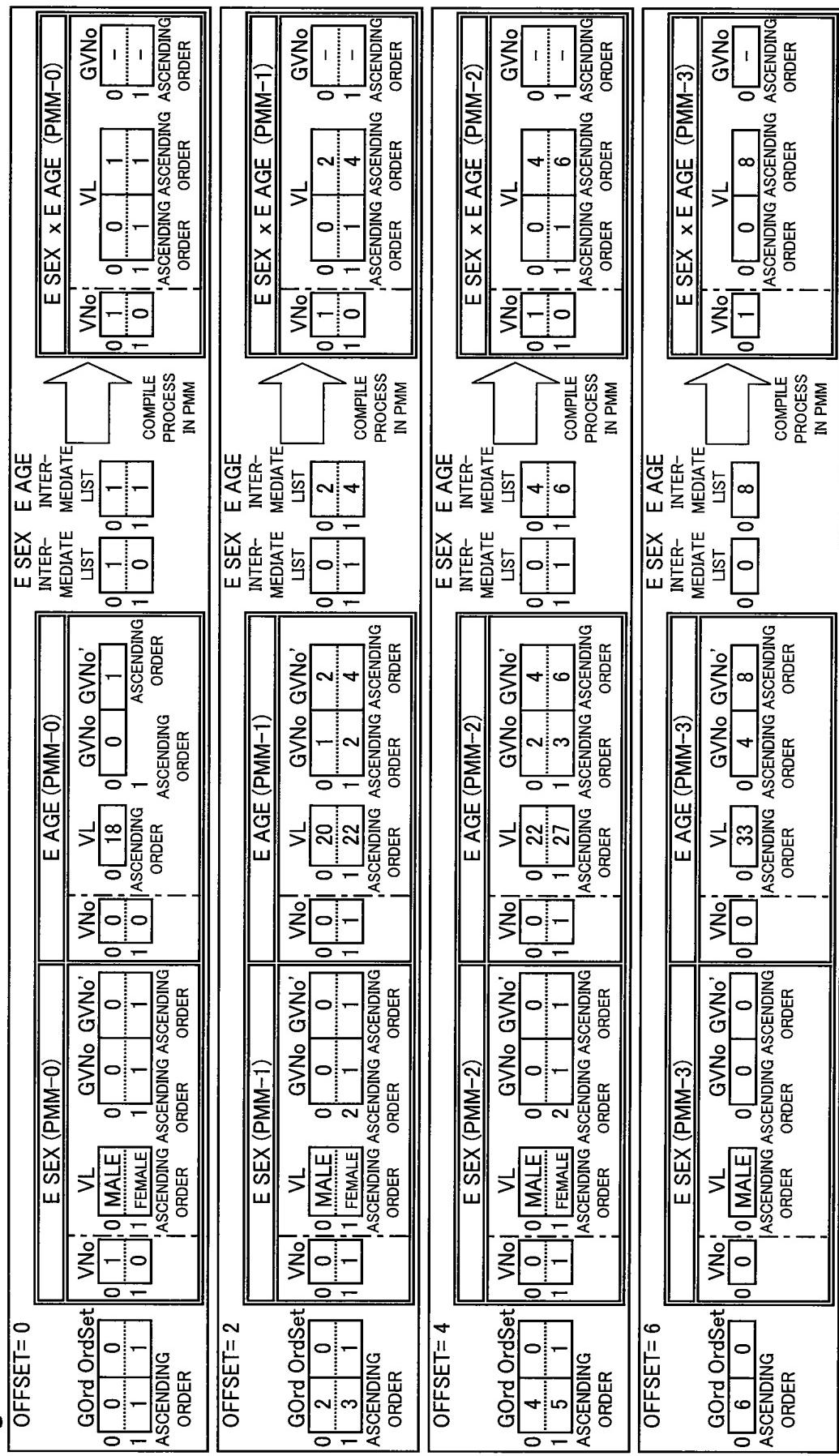


Fig.69

E SEX x E AGE (PMM-0)		
VNo	VL	GVNo
0 1 1 0	0 0 1 1 1 1	0 0 1 4
ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER

E SEX x E AGE (PMM-1)		
VNo	VL	GVNo
0 1 1 0	0 0 2 1 1 4	0 1 1 5
ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER

E SEX x E AGE (PMM-2)		
VNo	VL	GVNo
0 1 1 0	0 0 4 1 1 6	0 2 1 6
ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER

E SEX x E AGE (PMM-3)		
VNo	VL	GVNo
0 1	0 0 8	0 3
ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER

Fig.70

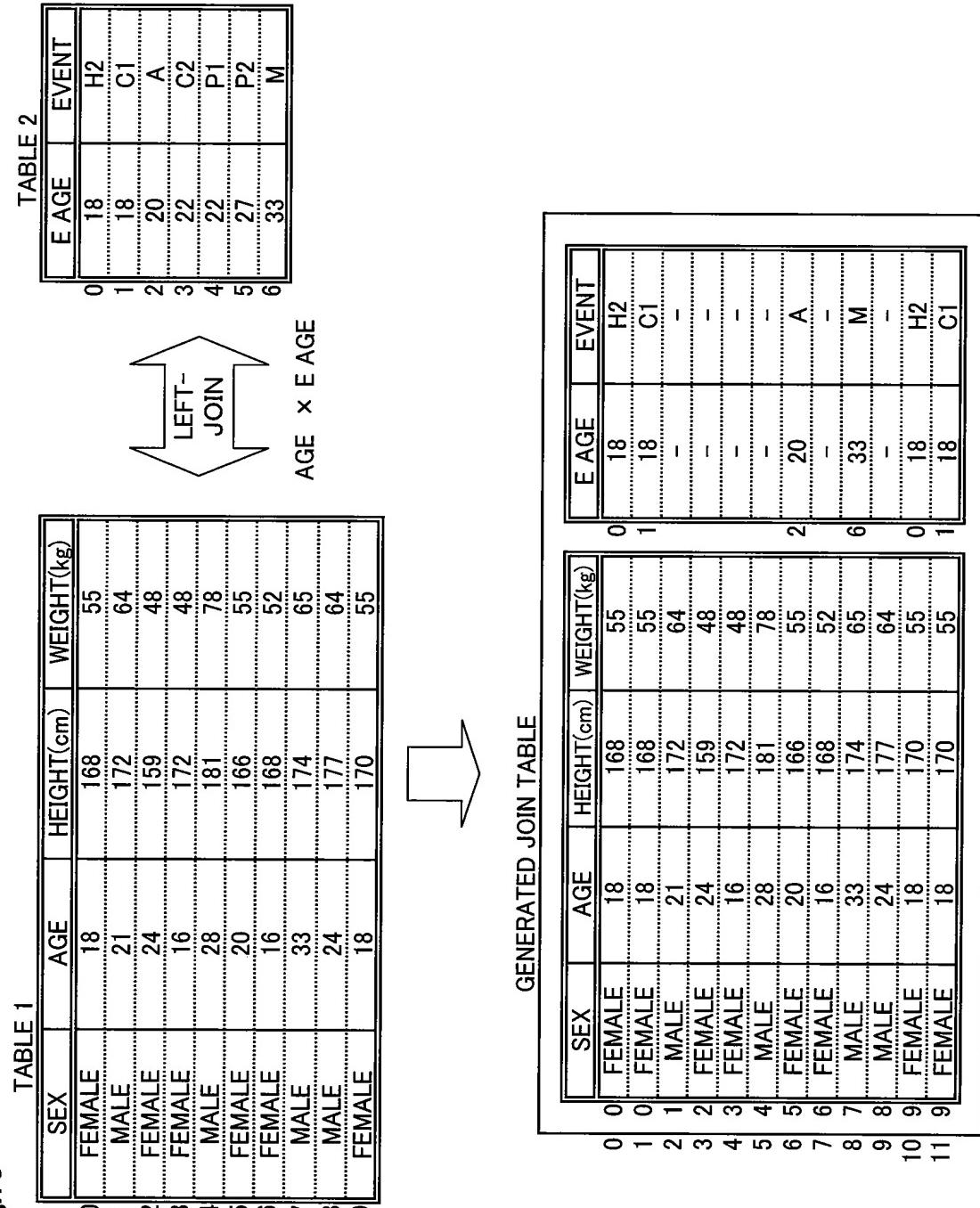


Fig. 71

GOrd OrdSet		AGE (PMM-0)				GOrd OrdSet		AGE (PMM-0)			
VNo	VL	GVNo	GVNo'	Count	Aggr	VNo	VL	GVNo	GVNo'	Count	Aggr
0 0	0 18	0 1	0 1	0 2	0	0 0	0 18	0 1	0 1	0 2	0
1 1	1 21	1 3	1 3	1 0->1	3->-1	1 1	1 21	1 3	1 3	1 1	-1
2 2	2 24	2 4	2 4	2 0->1	5->-1	2 2	2 24	2 4	2 5	2 1	-1
ASCENDING ORDER		ASCENDING ORDER				ASCENDING ORDER		ASCENDING ORDER			
GOrd OrdSet		AGE (PMM-1)				GOrd OrdSet		AGE (PMM-1)			
VNo	VL	GVNo	GVNo'	Count	Aggr	VNo	VL	GVNo	GVNo'	Count	Aggr
0 3	0 16	0 0	0 0	0 0->1	0->-1	0 0	0 16	0 0	0 0	0 1	-1
1 4	1 28	1 5	1 7	1 0->1	6->-1	1 1	1 28	1 5	1 7	1 1	-1
ASCENDING ORDER		ASCENDING ORDER				ASCENDING ORDER		ASCENDING ORDER			
GOrd OrdSet		AGE (PMM-2)				GOrd OrdSet		AGE (PMM-2)			
VNo	VL	GVNo	GVNo'	Count	Aggr	VNo	VL	GVNo	GVNo'	Count	Aggr
0 5	0 16	0 0	0 0	0 0->1	0->-1	0 1	0 16	0 0	0 0	0 1	-1
1 6	1 20	1 2	1 2	1 1->1	2->-1	1 0	1 20	1 2	1 2	1 1	2
2 7	2 33	2 6	2 8	2 1->1	6->-1	2 2	2 33	2 6	2 8	2 1	6
ASCENDING ORDER		ASCENDING ORDER				ASCENDING ORDER		ASCENDING ORDER			
GOrd OrdSet		AGE (PMM-3)				GOrd OrdSet		AGE (PMM-3)			
VNo	VL	GVNo	GVNo'	Count	Aggr	VNo	VL	GVNo	GVNo'	Count	Aggr
0 8	0 18	0 1	0 1	0 2	0	0 1	0 18	0 1	0 1	0 2	0
1 9	1 24	1 4	1 5	1 0->1	0->-1	1 0	1 24	1 4	1 5	1 1	-1
ASCENDING ORDER		ASCENDING ORDER				ASCENDING ORDER		ASCENDING ORDER			

Fig.72

PMM-0				PMM-1				PMM-2				PMM-3			
SEX AGE HEIGHT WEIGHT															
0 FEMALE 18 168 55	1 MALE 21 172 64	2 FEMALE 24 159 48		0 FEMALE 16 172 48	1 MALE 28 181 78			0 FEMALE 20 166 55	1 FEMALE 16 168 52	2 MALE 33 174 65		0 MALE 24 177 64	1 FEMALE 18 170 55		
0 0 0 0	1 2 1 1	2 3 2 2	ASCENDING ORDER	0 4 3 0	1 5 4 1	ASCENDING ORDER		0 6 5 0	1 7 6 1	2 8 7 2	ASCENDING ORDER	0 9 8 0	1 10 9 1	ASCENDING ORDER	
0 1 1 2	1 2 2 2	2 3 2 2	ASCENDING ORDER	0 1 1 2	1 2 2 2	ASCENDING ORDER		0 1 1 2	1 2 2 2	2 3 2 2	ASCENDING ORDER	0 1 1 2	1 4 5 1	ASCENDING ORDER	
OFFSET=0				OFFSET=3				OFFSET=5				OFFSET=8			
SetAggr GOrd OrdSet				SetAggr GOrd OrdSet				SetAggr GOrd OrdSet				SetAggr GOrd OrdSet			
0 0 0 0	1 2 1 1	2 3 2 2	ASCENDING ORDER	0 4 3 0	1 5 4 1	ASCENDING ORDER		0 6 5 0	1 7 6 1	2 8 7 2	ASCENDING ORDER	0 9 8 0	1 10 9 1	ASCENDING ORDER	
0 1 1 2	1 2 2 2	2 3 2 2	ASCENDING ORDER	0 1 1 2	1 2 2 2	ASCENDING ORDER		0 1 1 2	1 2 2 2	2 3 2 2	ASCENDING ORDER	0 1 1 2	1 4 5 1	ASCENDING ORDER	
AGE (PMM-0)				AGE (PMM-1)				AGE (PMM-2)				AGE (PMM-3)			
VL GVNo GVNo' Count Aggr															
0 1 1 2	1 2 1 1	2 3 2 2	ASCENDING ORDER	0 1 1 2	1 2 2 2	ASCENDING ORDER		0 1 1 2	1 2 2 2	2 3 2 2	ASCENDING ORDER	0 1 1 2	1 4 5 1	ASCENDING ORDER	

Fig.7.3

PMM-0		OFFSET = 0		E AGE (PMM-0)	
E AGE	EVENT	GOrd	OrdSet	VNo	VL
0 18	H2	0 0	0	0 0	0 18
1 18	C1	1 1	1	0 0	1 1
					ASCENDING ORDER

PMM-1		OFFSET = 2		E AGE (PMM-1)	
E AGE	EVENT	GOrd	OrdSet	VNo	VL
0 20	A	0 2	0	0 0	0 20
1 22	C2	1 3	1	1 22	1 2
					ASCENDING ORDER

PMM-2		OFFSET = 4		E AGE (PMM-2)	
E AGE	EVENT	GOrd	OrdSet	VNo	VL
0 22	P1	0 4	0	0 0	0 22
1 27	P2	1 5	1	1 27	1 3
					ASCENDING ORDER

PMM-3		OFFSET = 6		E AGE (PMM-3)	
E AGE	EVENT	GOrd	OrdSet	VNo	VL
0 33	M	0 6	0	0 0	0 33
					ASCENDING ORDER

Fig.74

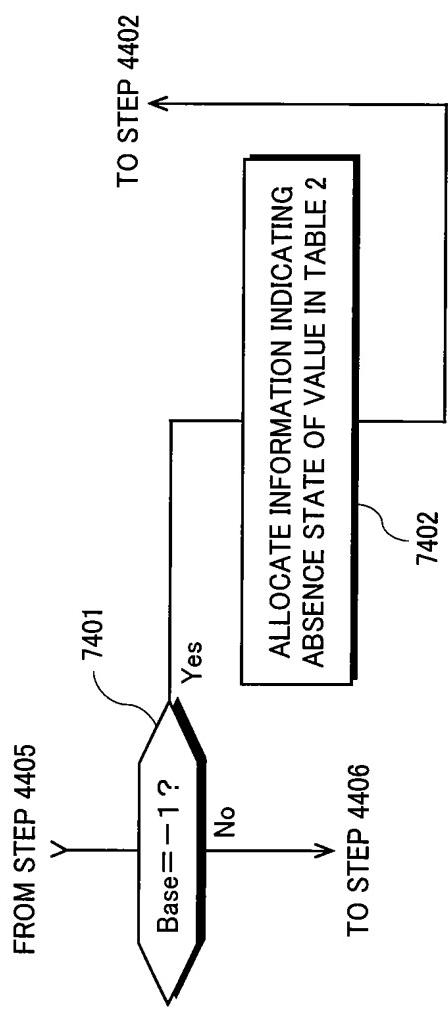


Fig. 7.5
4401(Yes)

TABLE 1		OFFSET=0		AGE (PMM-0)	
SetAggr		GOrd	OrdSet	VNo	VL
0	0	0	0	0	18
1	2	1	1	1	21
2	3	2	2	2	24

ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER

SetAggr		GOrd	OrdSet	VNo	VL	GVNo	Count	Aggr
0	0	0	0	0	1	1	2	0
1	2	1	1	1	3	3	1	-1
2	3	2	2	2	4	5	1	-1

ASCENDING ORDER ASCENDING ORDER ORDER

4401(No)

OFFSET = 3

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TABLE 2

AGE (PMM-0)					
VNNo	VL	GVNo	GVNo	Count	Aggr
0	0	18	0	2	0
1	1	21	1	3	1
2	2	24	2	5	1
					-1
					-1

ASCENDING ORDER ASCENDING ORDER ORDER

SetAggr	G0rd	OrdSet
0	0	0
1	2	1
2	3	2

ASCENDING ORDER ASCENDING ORDER ORDER

4401(No)

OFFSET=3

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TABLE 2

E AGE (PMM-0)	
VNo	VL
0 (0) 1 0	0 [18] ASCENDING ORDER
GvNo	GvNo Count
0 0 1	0 0 ASCENDING ORDER
GOrd	OrdSet
0 0 1 1	0 0 ASCENDING ORDER

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Fig. 76
4401(Yes)

TABLE 1
OFFSET= 0

AGE (PMM-0)			
VNo	VL	GVNo	Count Aggr
0 0	0 18	0 1	2
1 1	1 21	1 3	1
2 2	2 24	2 4	5
			-1
			-1
			-1

ASCENDING ORDER
ASCENDING ORDER

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OFFSET= 3

AGE (PMM-1)			
VNo	VL	GVNo	Count Aggr
0 0	0 16	0 0	1
1 1	1 28	1 5	7
			-1
			-1

ASCENDING ORDER
ASCENDING ORDER

4401(No)

AGE (PMM-2)			
VNo	VL	GVNo	Count Aggr
0 1	0 16	0 0	1
1 0	1 20	1 2	2
2 2	2 33	2 6	8
			1
			2
			1
			6

ASCENDING ORDER
ASCENDING ORDER

4401(No)

AGE (PMM-3)			
VNo	VL	GVNo	Count Aggr
0 1	0 18	0 1	1
1 0	1 24	1 4	5
			1
			2
			0
			-1

ASCENDING ORDER
ASCENDING ORDER

4401(No)

AGE (PMM-4)			
VNo	VL	GVNo	Count Aggr
0 0	0 33	0 4	8
			1

ASCENDING ORDER
ASCENDING ORDER

TABLE 2

E AGE (PMM-0)			
VNo	VL	GVNo	Count
0 0	0 18	0 0	1
1 0	1 0	1 1	1
			2

ASCENDING ORDER
ASCENDING ORDER

E AGE (PMM-1)			
VNo	VL	GVNo	Count
0 0	0 20	0 1	2
1 1	1 22	1 2	4
			1

ASCENDING ORDER
ASCENDING ORDER

E AGE (PMM-2)			
VNo	VL	GVNo	Count
0 0	0 22	0 2	4
1 1	1 27	1 3	6
			1

ASCENDING ORDER
ASCENDING ORDER

E AGE (PMM-3)			
VNo	VL	GVNo	Count
0 0	0 33	0 4	8
			1

ASCENDING ORDER
ASCENDING ORDER

Fig.77
4401(Yes)

TABLE 1
OFFSET= 0

AGE (PMM-0)			
VNo	VL	GVNo	Count Aggr
0 0	18	0 1	2 0
1 1	21	1 3	3 -1
2 2	24	2 4	5 1
			-1

ASCENDING ORDER
ASCENDING ORDER

(7401(Yes))

4401(No)

AGE (PMM-1)			
VNo	VL	GVNo	Count Aggr
0 0	16	0 0	1 -1
1 1	28	1 5	7 1
			-1

ASCENDING ORDER
ASCENDING ORDER

4401(No)

AGE (PMM-2)			
VNo	VL	GVNo	Count Aggr
0 1	16	0 0	1 -1
1 0	20	1 2	2 1
2 2	33	2 6	8 1
			6

ASCENDING ORDER
ASCENDING ORDER

4401(No)

AGE (PMM-3)			
VNo	VL	GVNo	Count Aggr
0 1	18	0 1	1 0
1 0	24	1 4	5 1
			-1

ASCENDING ORDER
ASCENDING ORDER

TABLE 2

E AGE (PMM-0)			
VNo	VL	GVNo	Count
0 0	18	0 0	1 2
1 0			1 ASCENDING ORDER

E AGE (PMM-1)			
VNo	VL	GVNo	Count
0 0	20	0 1	2 1
1 1	22	1 2	4 ASCENDING ORDER

E AGE (PMM-2)			
VNo	VL	GVNo	Count
0 0	22	0 2	4 1
1 1	27	1 3	6 ASCENDING ORDER

E AGE (PMM-3)			
VNo	VL	GVNo	Count
0 0	33	0 4	8 ASCENDING ORDER

Fig.78

● RECORD OF JOIN TABLE = 0	TABLE 1 SEX AGE HEIGHT WEIGHT 0 FEMALE 18 168 55	TABLE 2 E AGE EVENT 0 18 H2
● RECORD OF JOIN TABLE = 1	TABLE 1 SEX AGE HEIGHT WEIGHT 0 FEMALE 18 168 55	TABLE 2 E AGE EVENT 1 18 C1
● RECORD OF JOIN TABLE = 2	TABLE 1 SEX AGE HEIGHT WEIGHT 1 MALE 21 172 64	TABLE 2 E AGE EVENT -1 - -
● RECORD OF JOIN TABLE = 3	TABLE 1 SEX AGE HEIGHT WEIGHT 2 FEMALE 24 159 48	TABLE 2 E AGE EVENT -1 - -
● RECORD OF JOIN TABLE = 4	TABLE 1 SEX AGE HEIGHT WEIGHT 3 FEMALE 16 172 48	TABLE 2 E AGE EVENT -1 - -
● RECORD OF JOIN TABLE = 5	TABLE 1 SEX AGE HEIGHT WEIGHT 4 MALE 28 181 78	TABLE 2 E AGE EVENT -1 - -
● RECORD OF JOIN TABLE = 6	TABLE 1 SEX AGE HEIGHT WEIGHT 5 FEMALE 20 166 55	TABLE 2 E AGE EVENT 2 20 A
● RECORD OF JOIN TABLE = 7	TABLE 1 SEX AGE HEIGHT WEIGHT 6 FEMALE 16 168 52	TABLE 2 E AGE EVENT -1 - -
● RECORD OF JOIN TABLE = 8	TABLE 1 SEX AGE HEIGHT WEIGHT 7 MALE 33 174 65	TABLE 2 E AGE EVENT 6 33 M
● RECORD OF JOIN TABLE = 9	TABLE 1 SEX AGE HEIGHT WEIGHT 8 MALE 24 177 64	TABLE 2 E AGE EVENT -1 - -
● RECORD OF JOIN TABLE = 10	TABLE 1 SEX AGE HEIGHT WEIGHT 9 FEMALE 18 170 55	TABLE 2 E AGE EVENT 0 18 H2
● RECORD OF JOIN TABLE = 11	TABLE 1 SEX AGE HEIGHT WEIGHT 9 FEMALE 18 170 55	TABLE 2 E AGE EVENT 1 18 C1

Fig.79

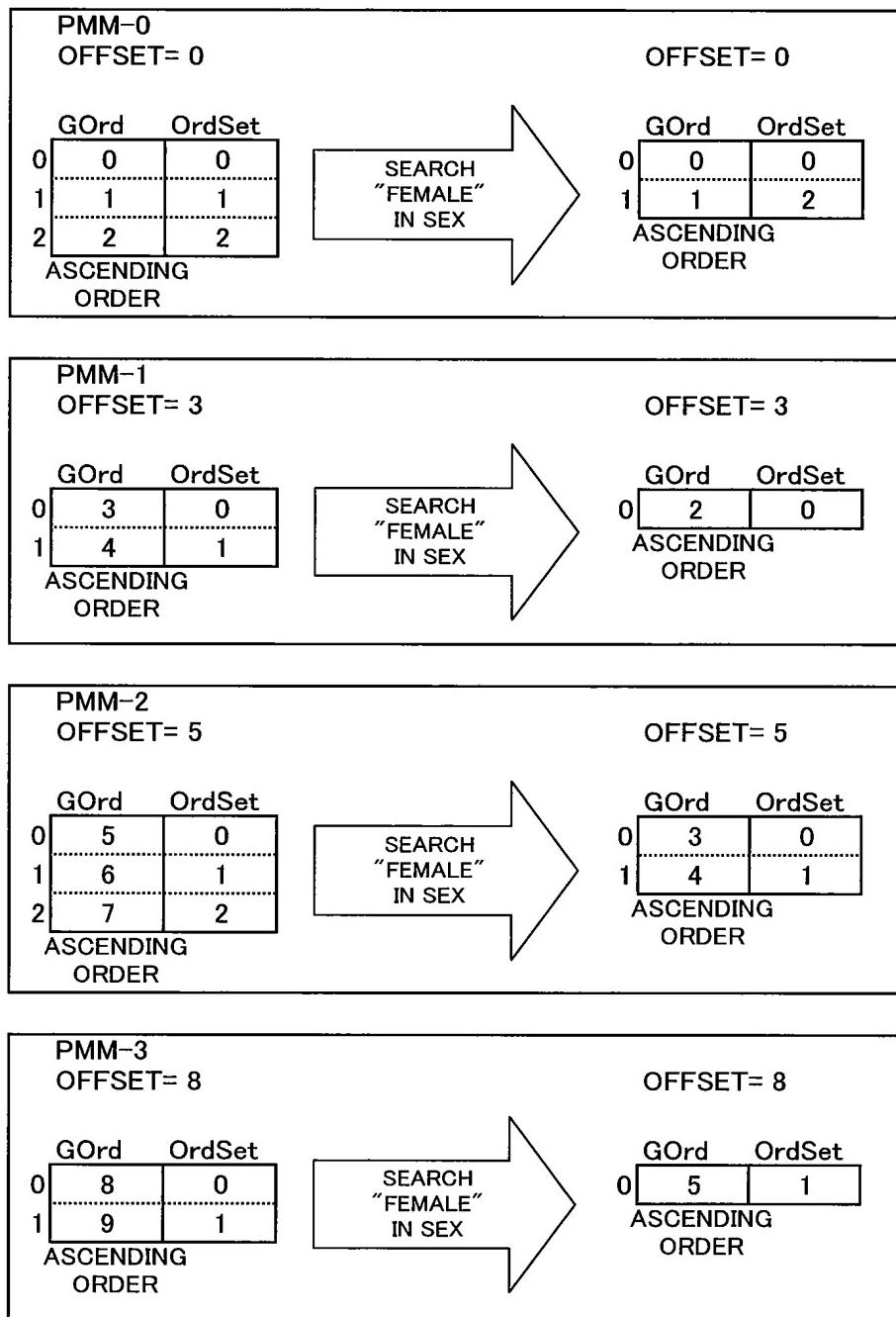


Fig.80

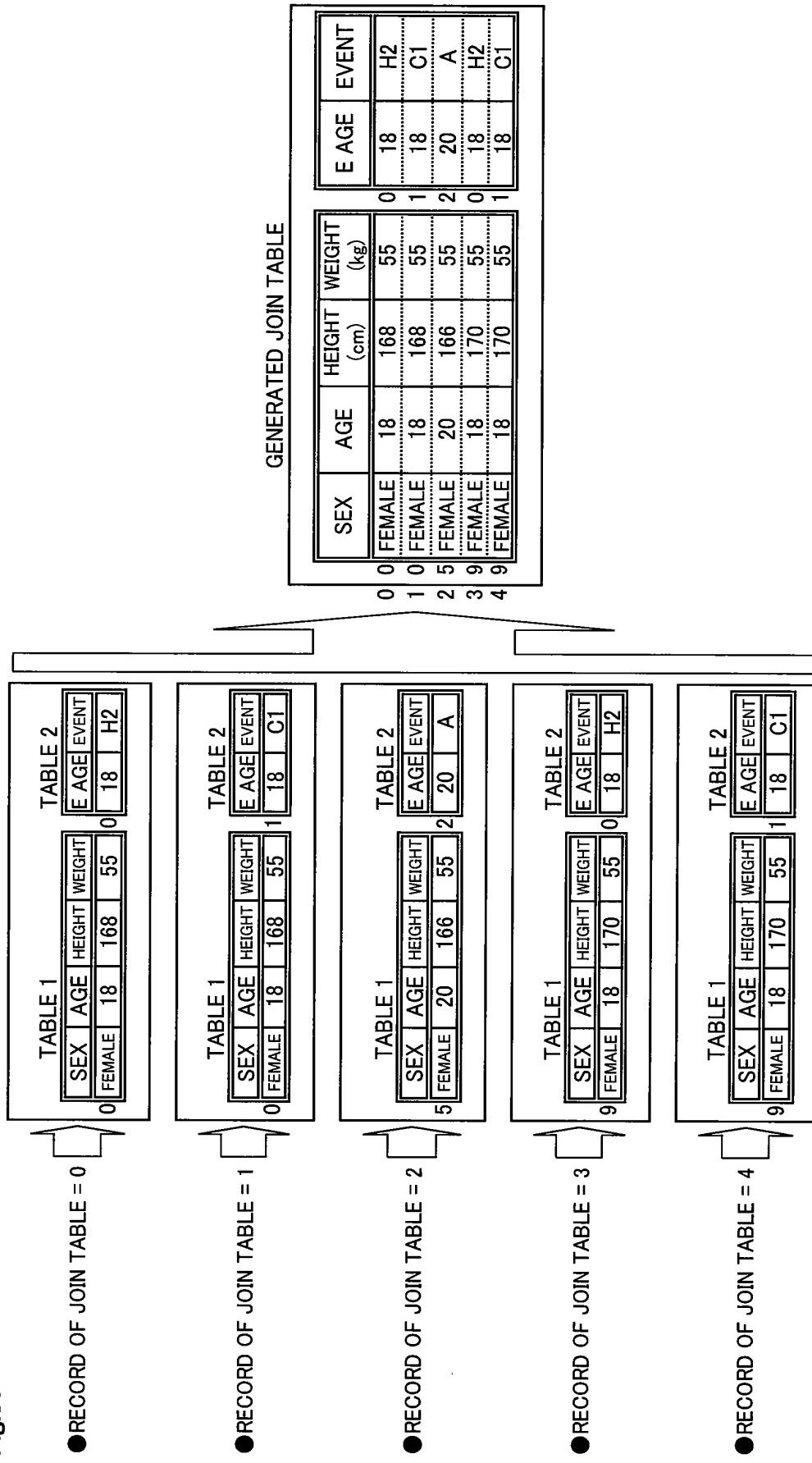


Fig.81

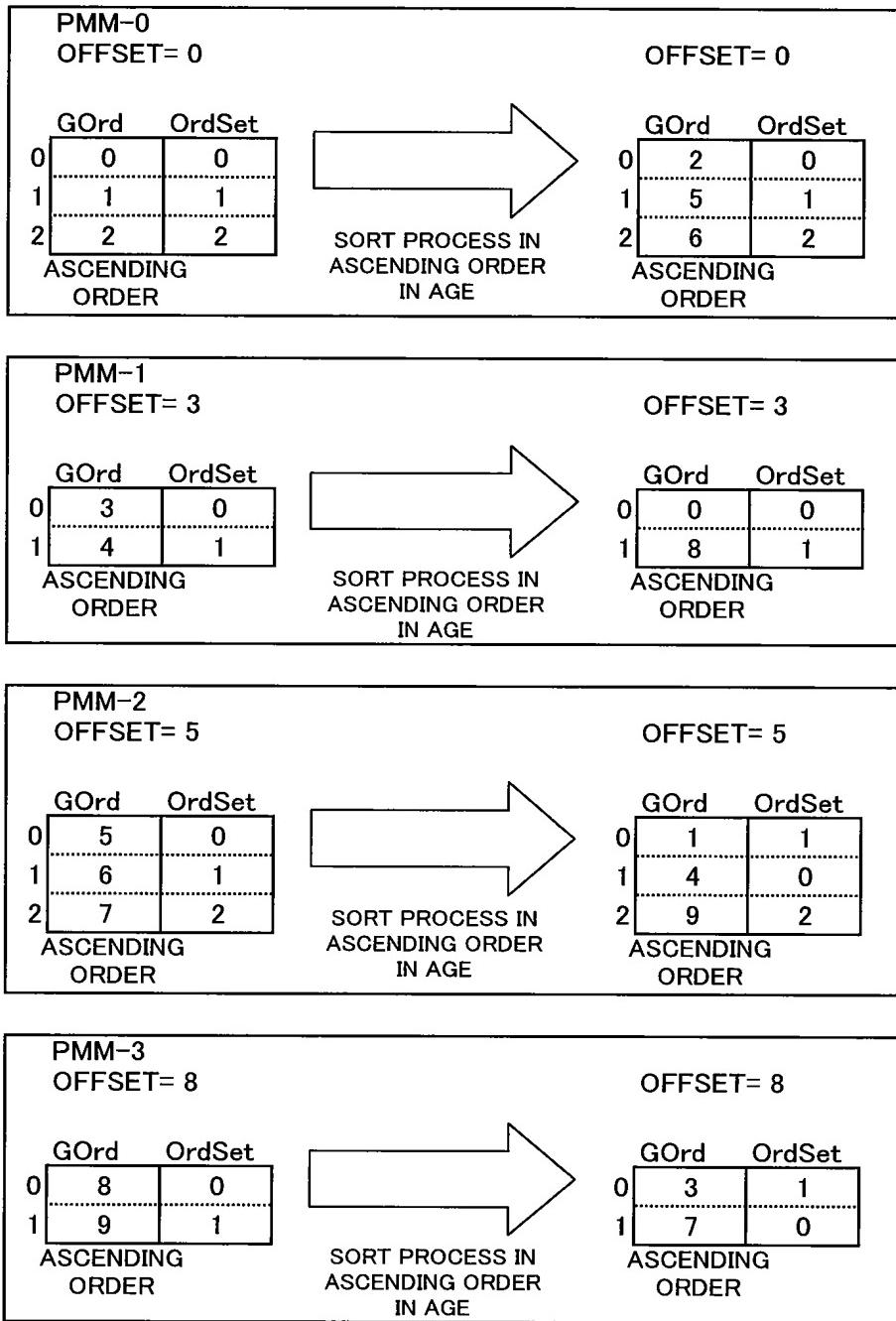


Fig.82

PMM-0				OFFSET=0				AGE (PMM-0)				
SEX	AGE	HEIGHT	WEIGHT	SetAggr	GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	Aggr
0 FEMALE	18	168	55	0	0	2	0	0	1	1	2	0
1 MALE	21	172	64	1	5	5	1	1	3	3	0	3
2 FEMALE	24	159	48	2	5	6	2	2	4	5	0	5

PMM-1				OFFSET=3				AGE (PMM-1)				
SEX	AGE	HEIGHT	WEIGHT	SetAggr	GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	Aggr
0 FEMALE	16	172	48	0	0	0	0	0	0	0	0	0
1 MALE	28	181	78	1	5	8	1	1	5	7	0	6

PMM-2				OFFSET=5				AGE (PMM-2)				
SEX	AGE	HEIGHT	WEIGHT	SetAggr	GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	Aggr
0 FEMALE	20	166	55	0	0	1	1	0	0	0	0	0
1 FEMALE	16	168	52	1	4	4	0	1	2	2	1	2
2 MALE	33	174	65	2	5	9	2	2	3	6	8	1

PMM-3				OFFSET=8				AGE (PMM-3)				
SEX	AGE	HEIGHT	WEIGHT	SetAggr	GOrd	OrdSet	VNo	VL	GVNo	GVNo'	Count	Aggr
0 MALE	24	177	64	0	2	3	1	0	1	1	2	0
1 FEMALE	18	170	55	1	5	7	0	1	4	5	0	0

Fig.8.3

PMM-0	OFFSET = 0	E AGE	EVENT	GOrd	OrdSet	VNo	VL	GVNo	GV/No'	Count
		0 18	H2	0 0	0	0 0	0 18	0 0	1	2
		1 18	C1	1 1	1	1 0	ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER
PMM-1	OFFSET = 2	E AGE	EVENT	GOrd	OrdSet	VNo	VL	GVNo	GV/No'	Count
		0 20	A	0 2	0	0 0	0 20	0 1	2	1
		1 22	C2	1 3	1	1 1	ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER
PMM-2	OFFSET = 4	E AGE	EVENT	GOrd	OrdSet	VNo	VL	GVNo	GV/No'	Count
		0 22	P1	0 4	0	0 0	0 22	0 2	4	1
		1 27	P2	1 5	1	1 1	ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER	ASCENDING ORDER
PMM-3	OFFSET = 6	E AGE	EVENT	GOrd	OrdSet	VNo	VL	GVNo	GV/No'	Count
		0 33	M	0 6	0	0 0	0 33	0 4	8	1
E AGE (PMM-0)	E AGE (PMM-1)	E AGE (PMM-2)	E AGE (PMM-3)							

Fig.84

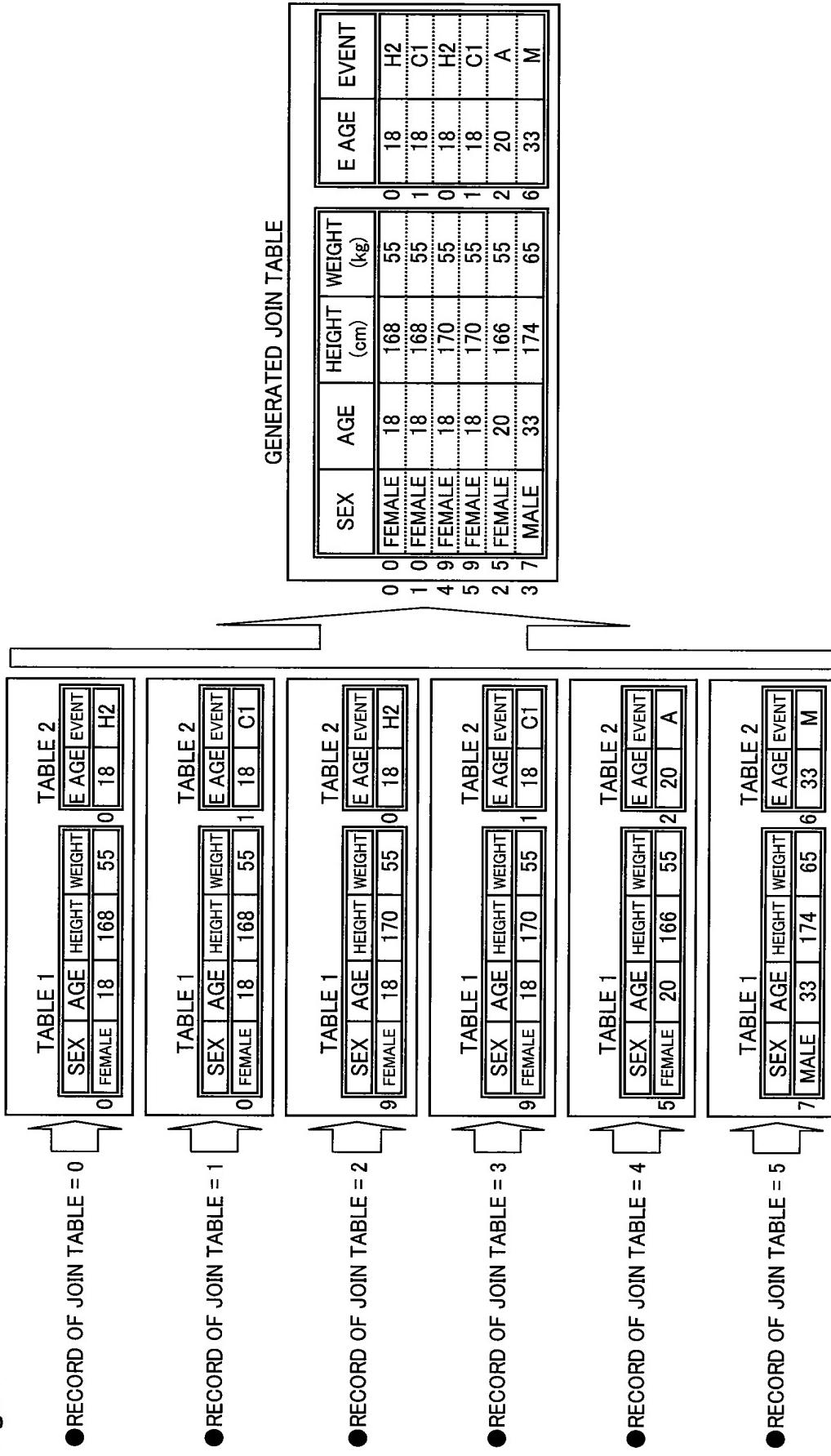


Fig. 85

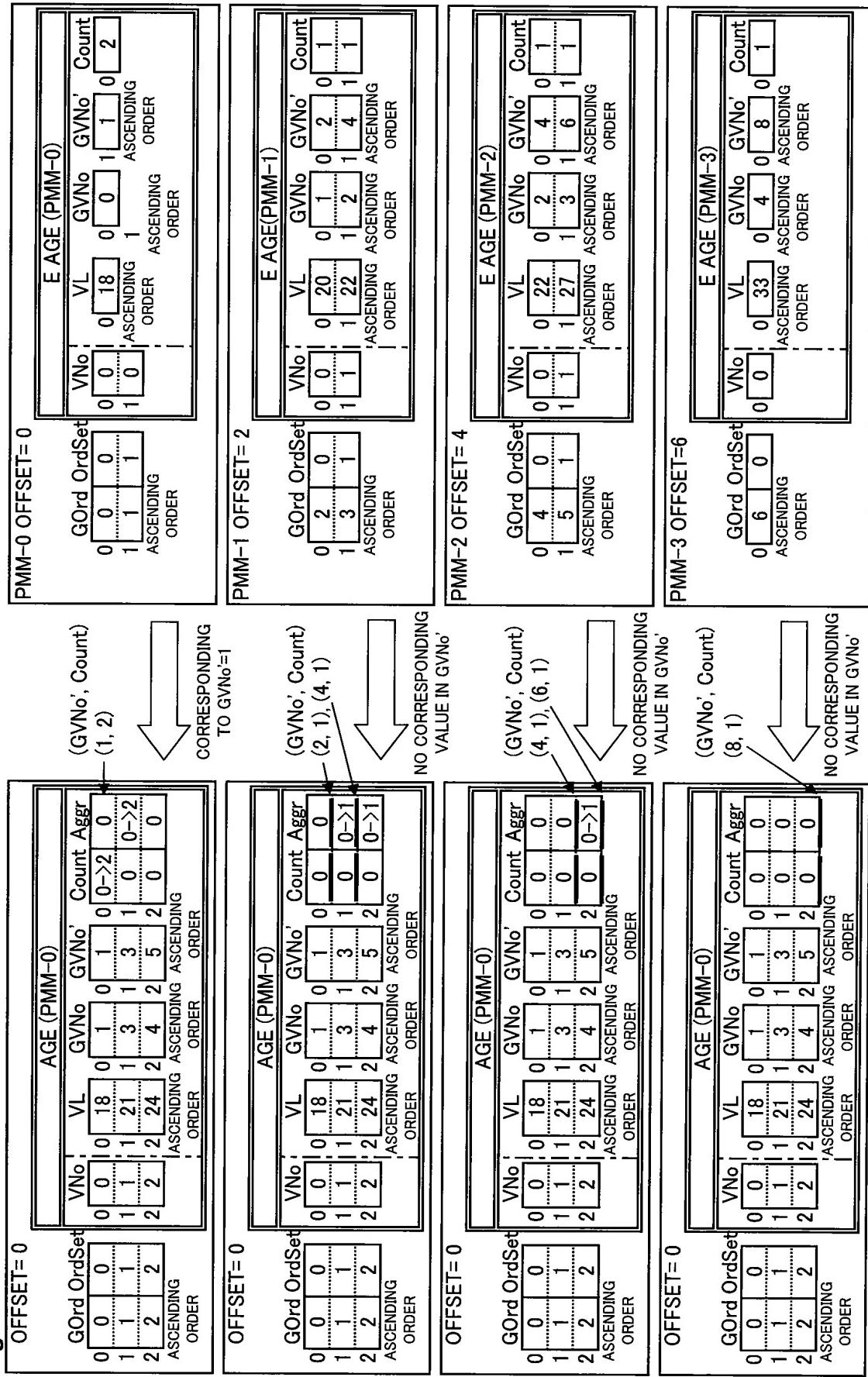


Fig.86

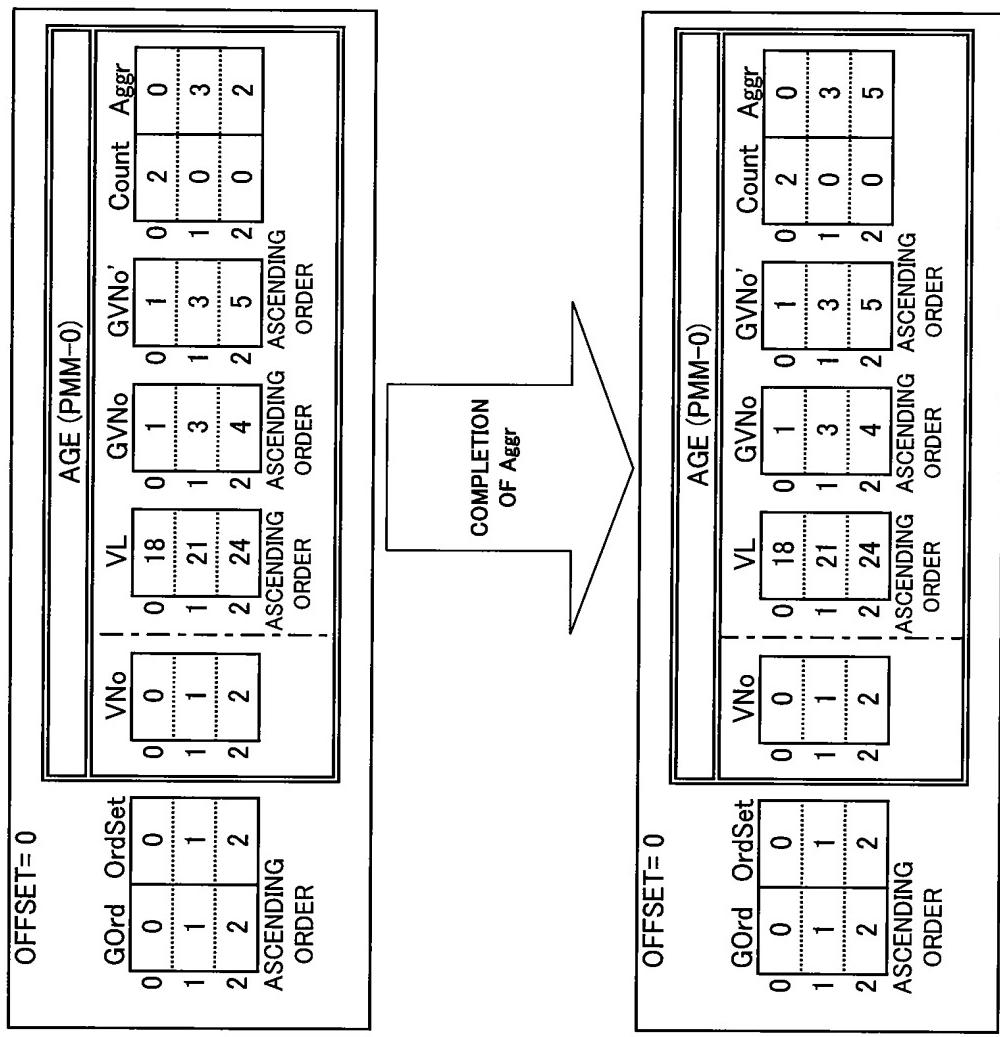


Fig.87

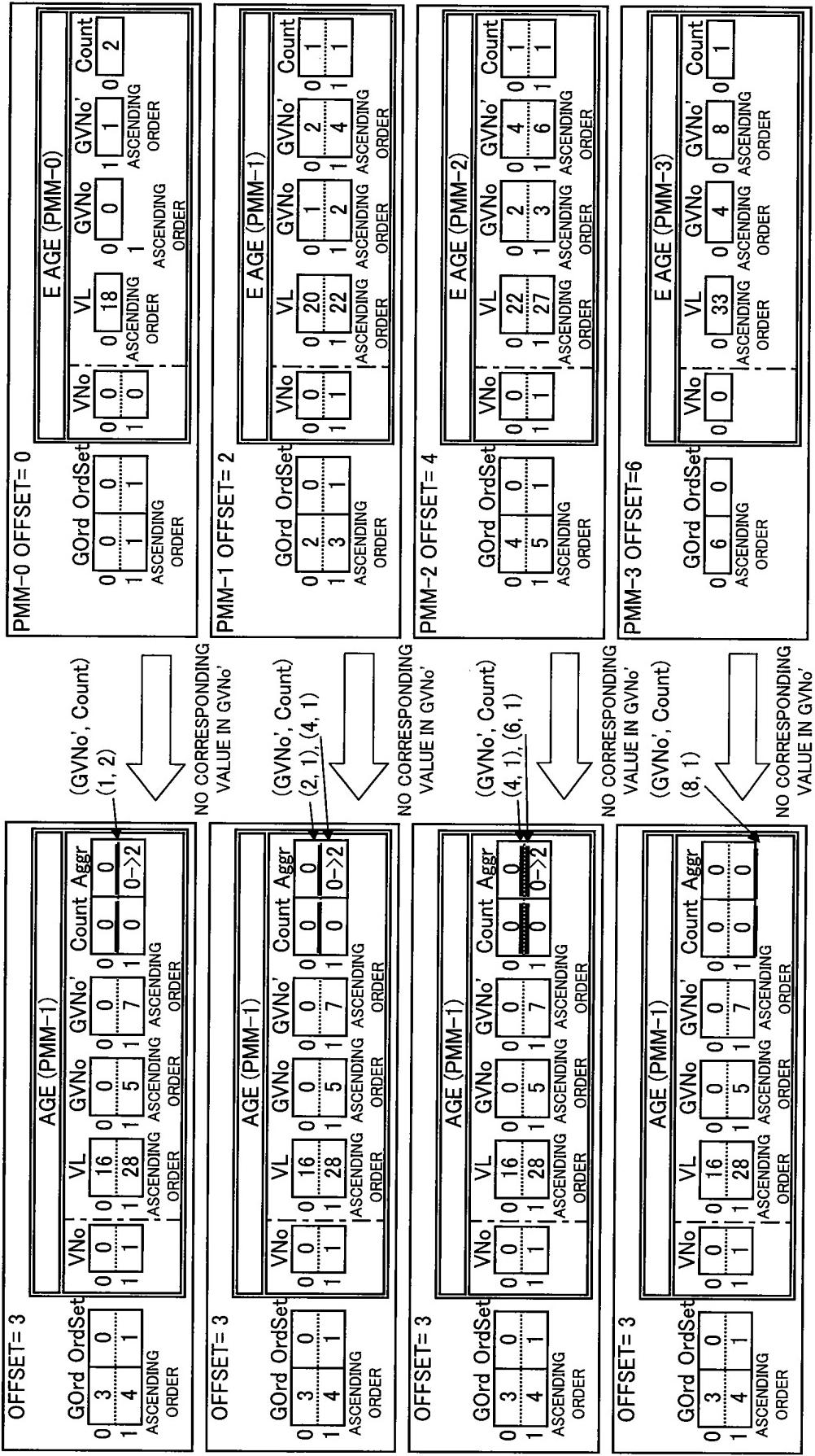
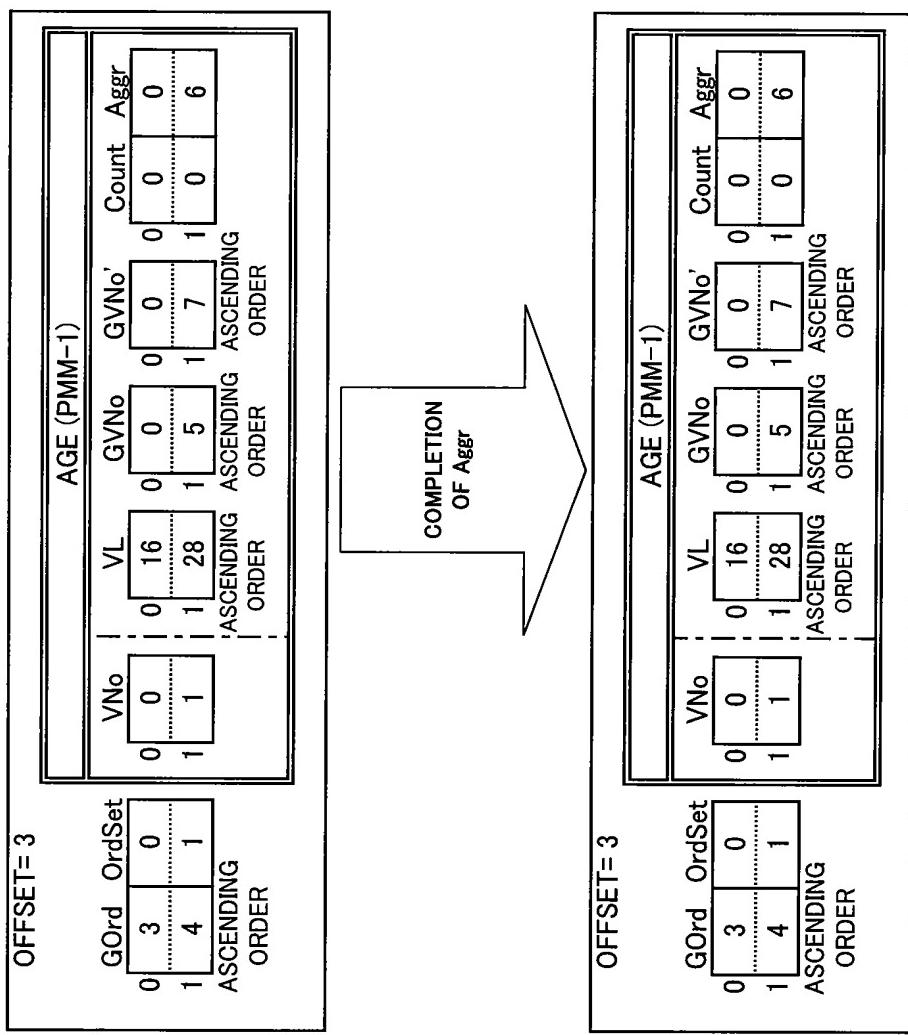


Fig.88



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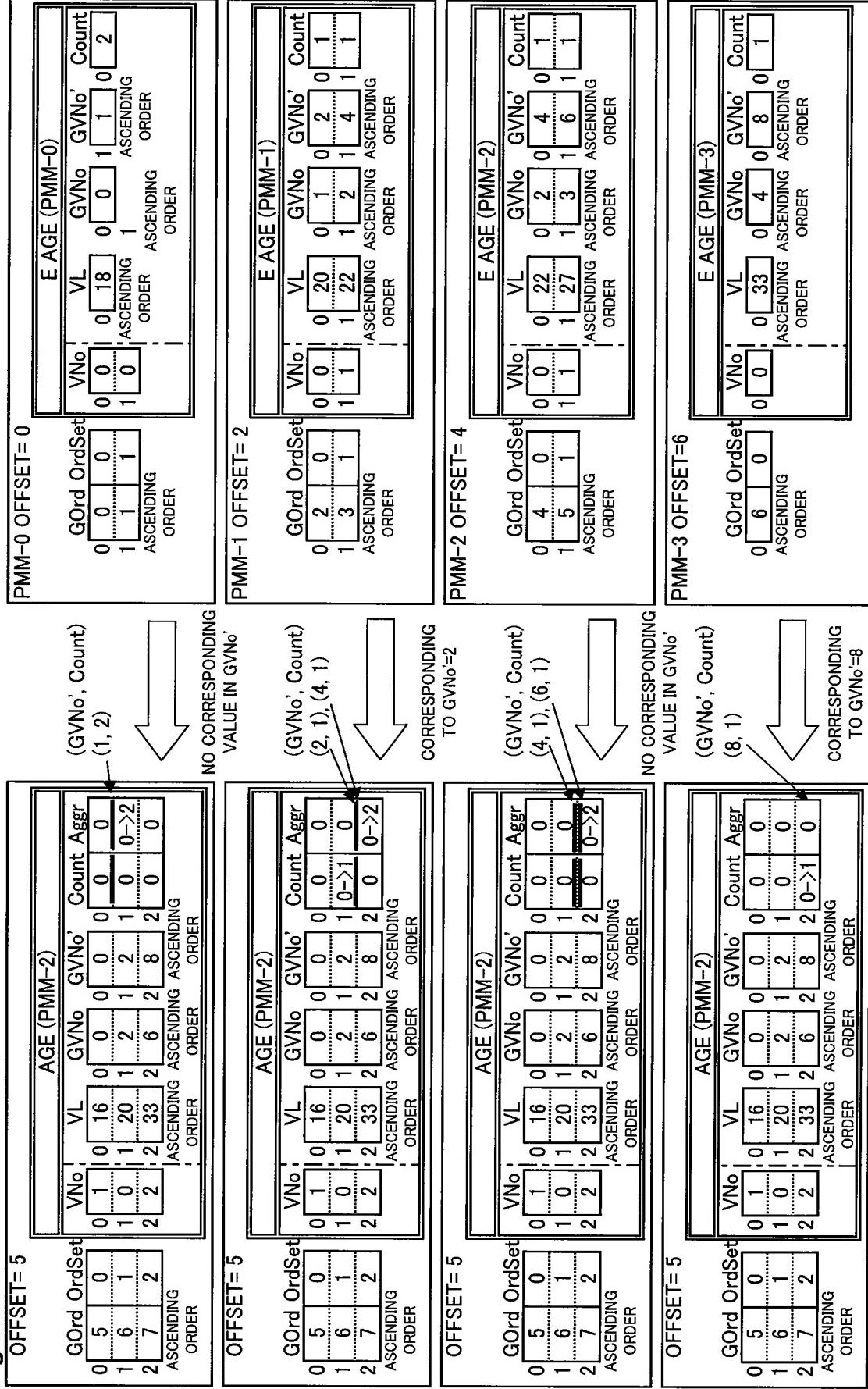


Fig.90

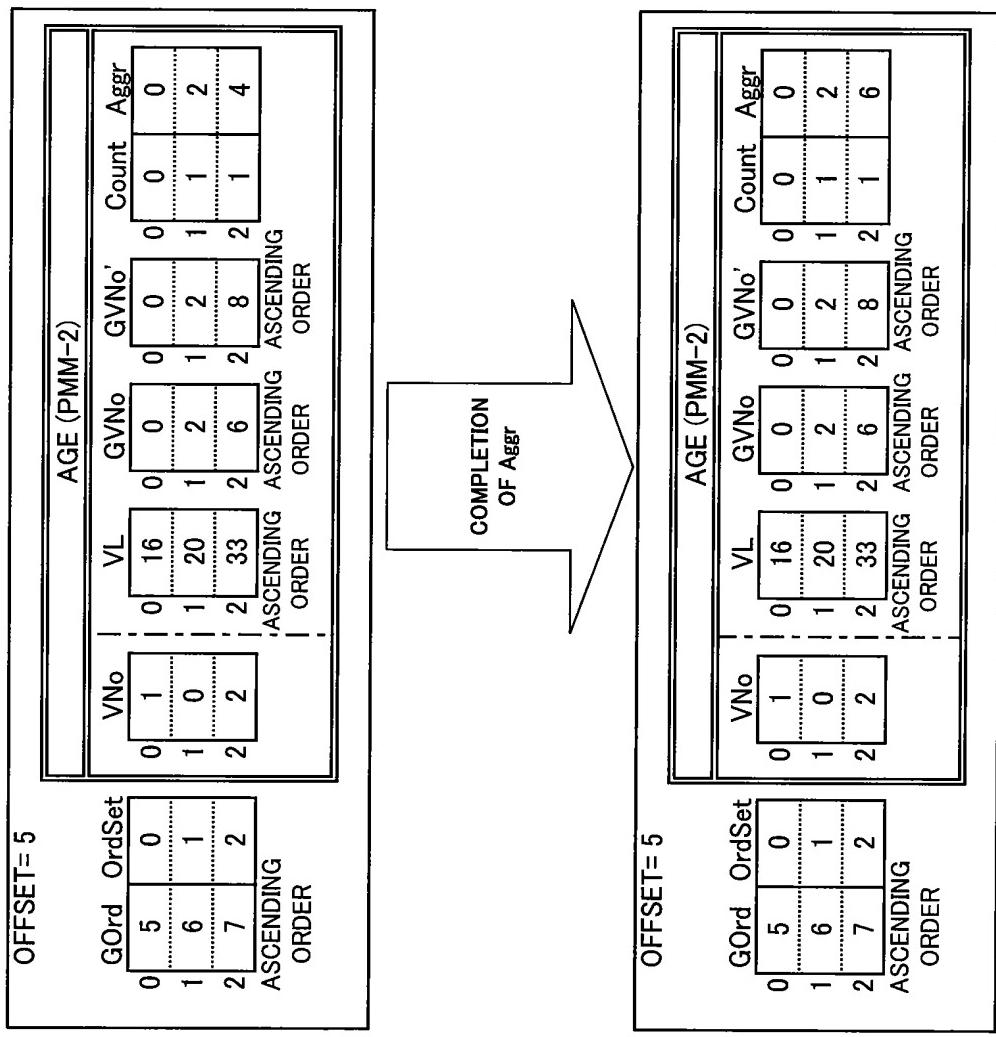


Fig.91

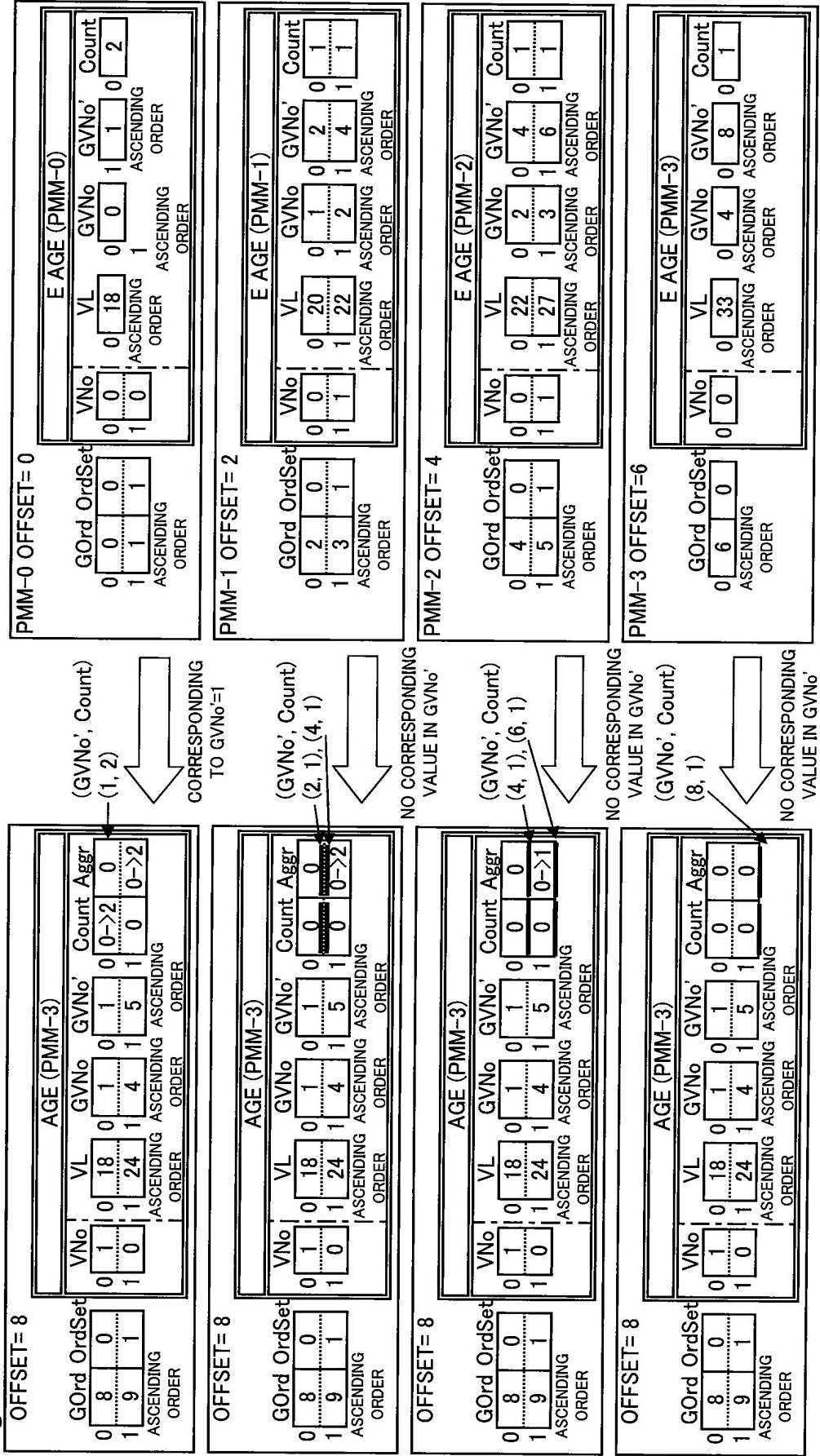


Fig.92

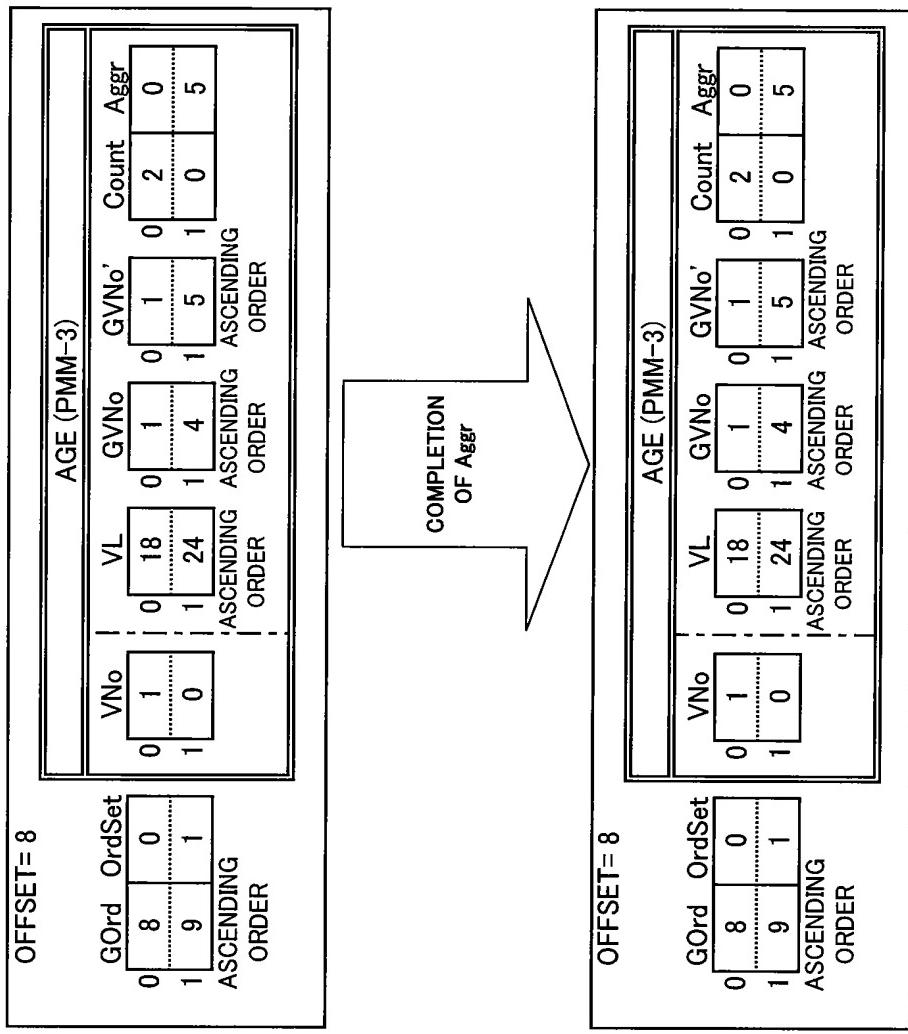


Fig.93

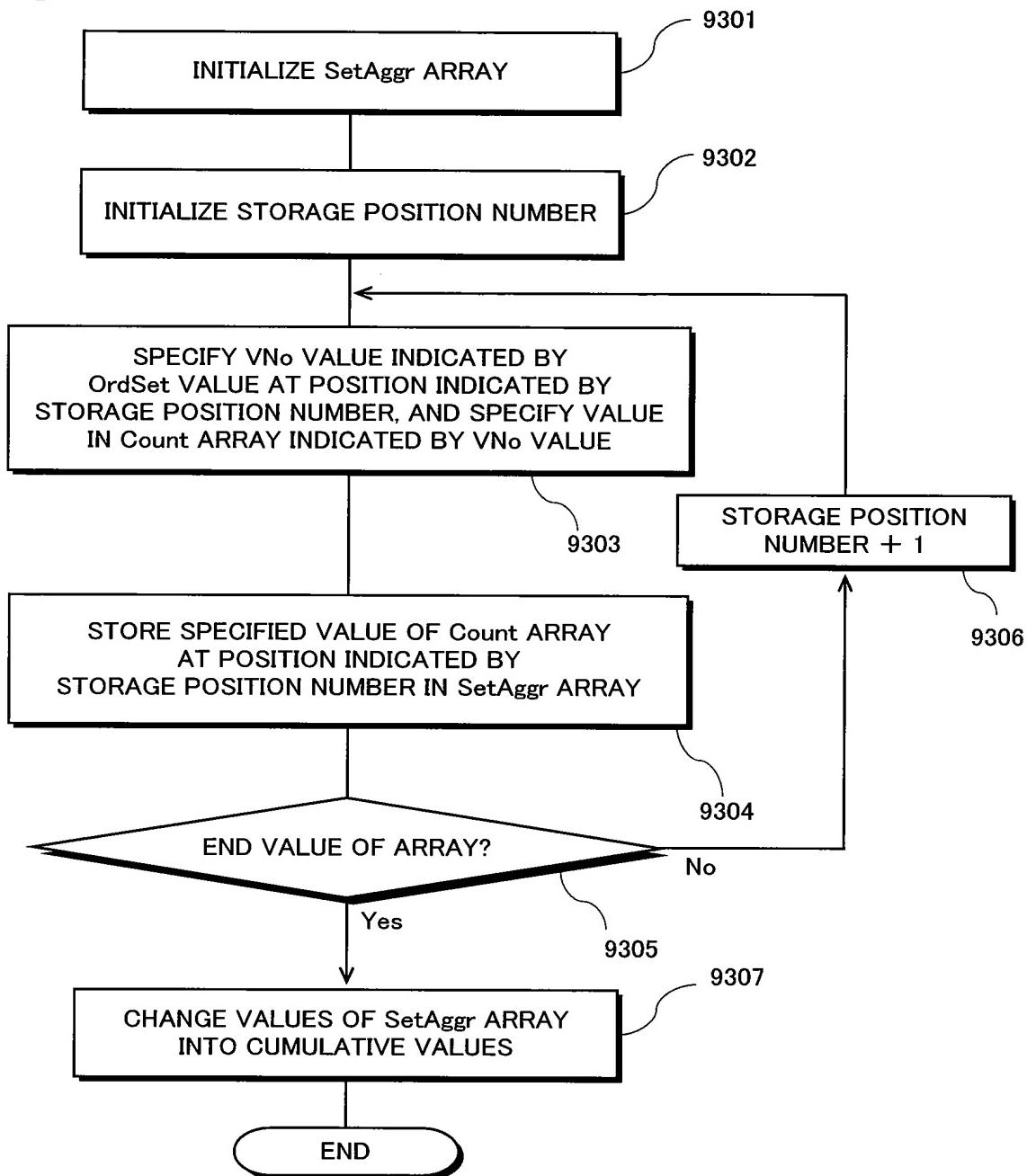


Fig.94

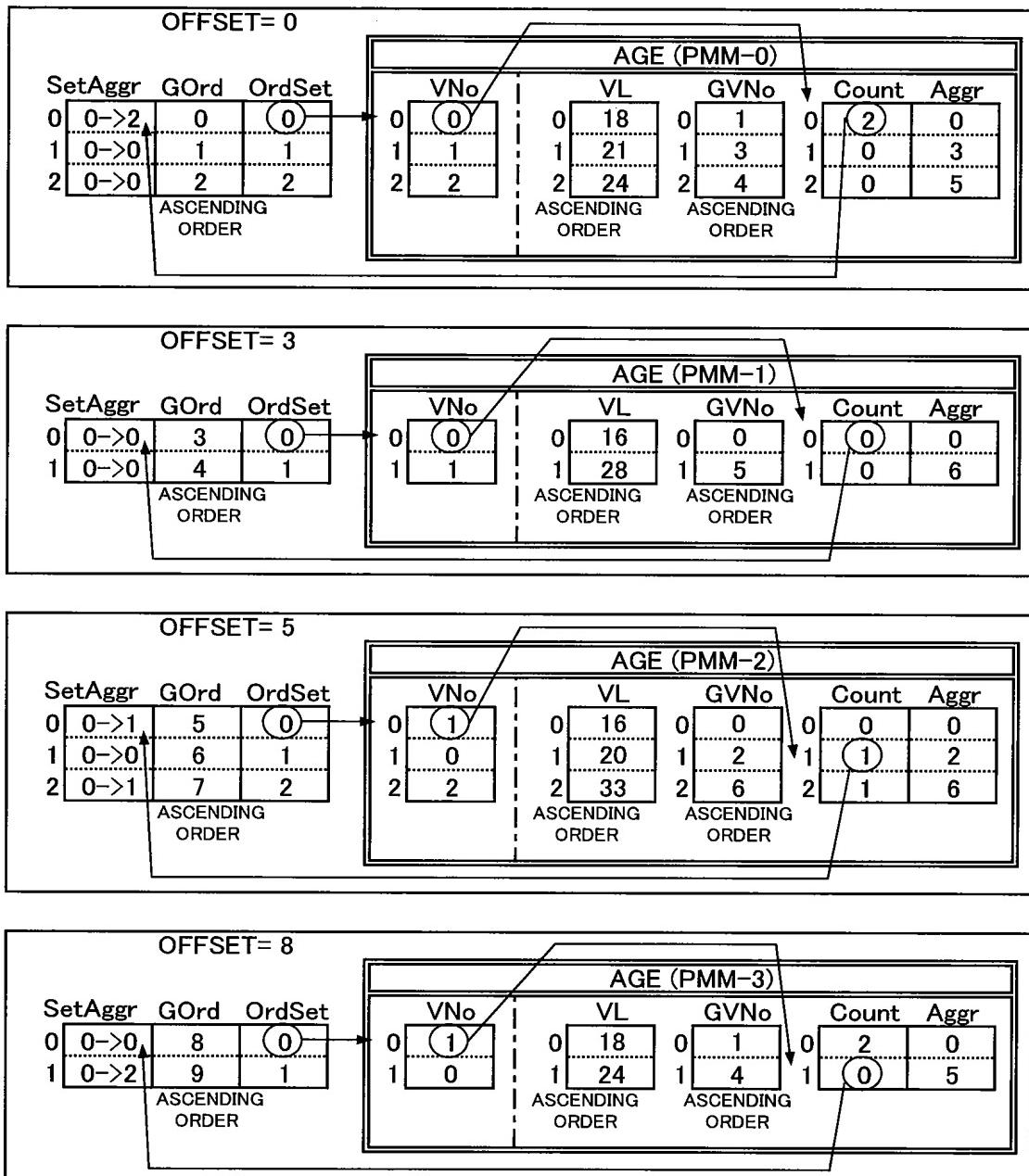
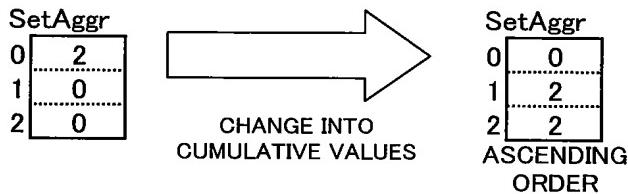
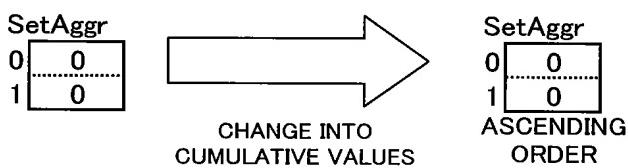


Fig.95A

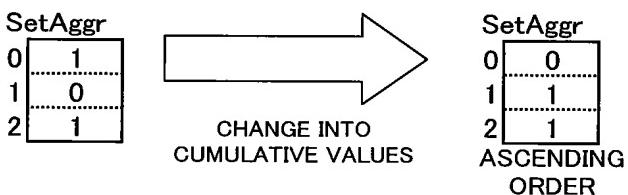
PMM-0



PMM-1



PMM-2



PMM-3

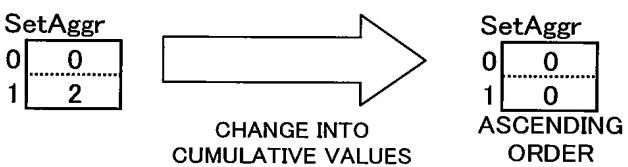


Fig.95B

Fig.96

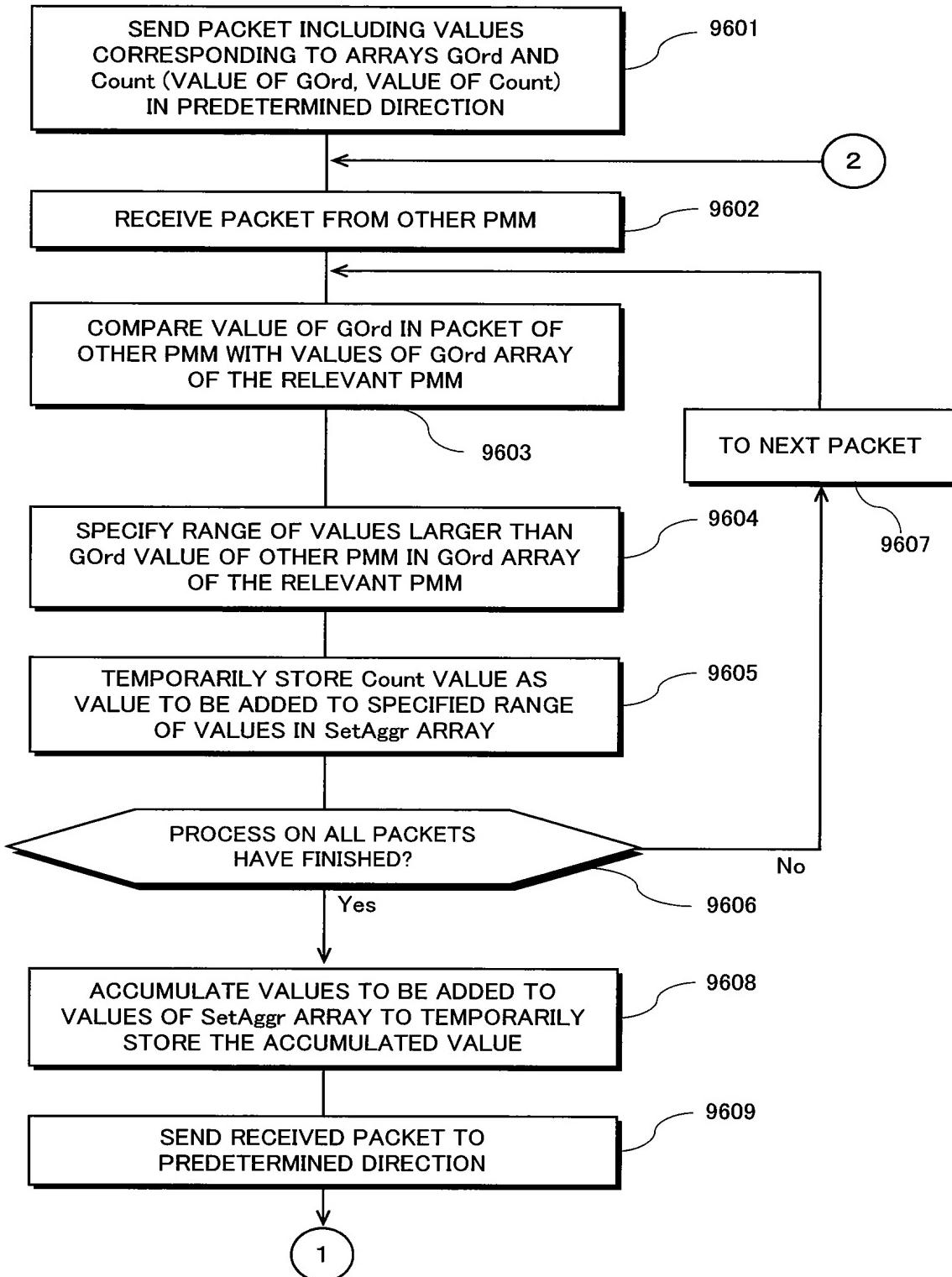


Fig.97

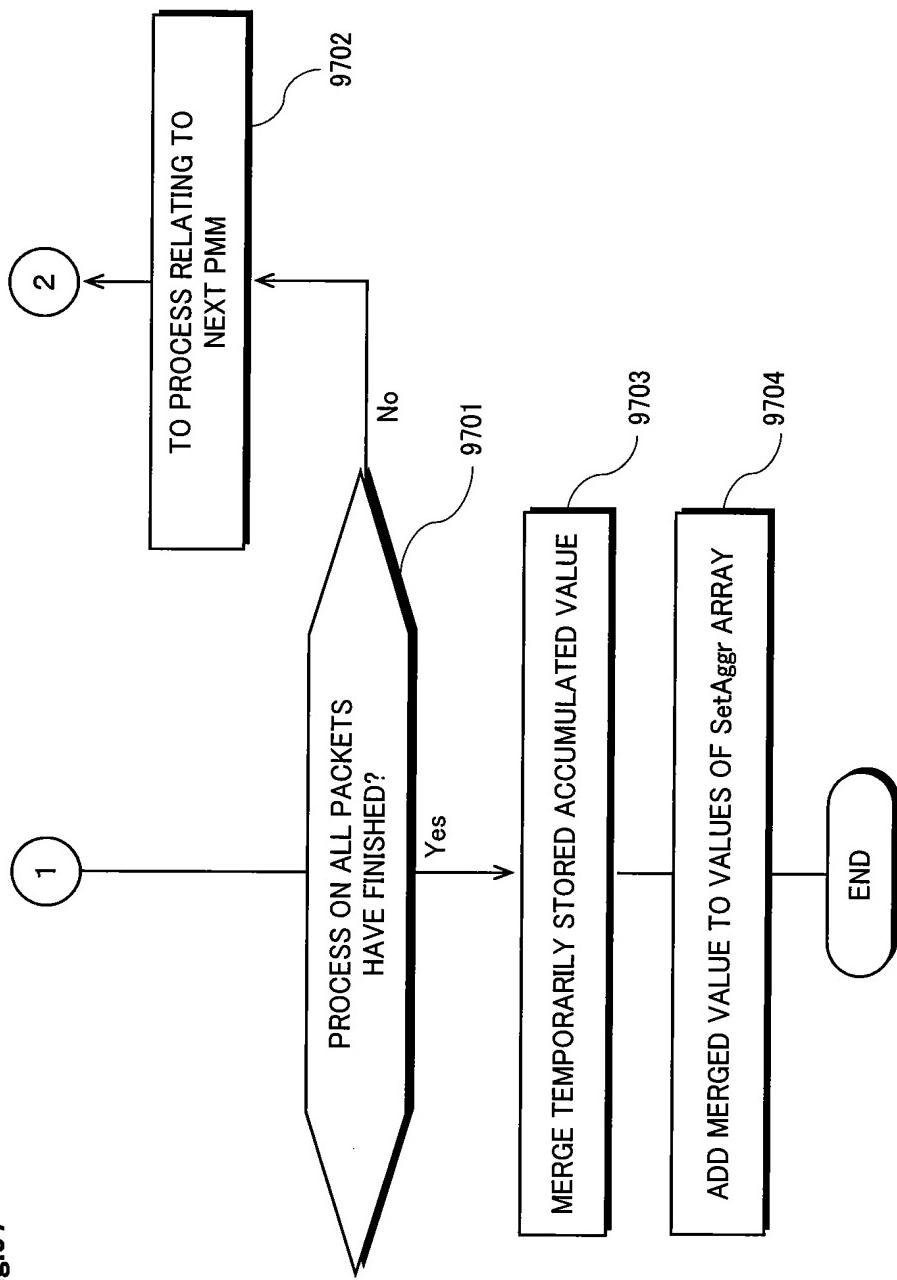


Fig.98

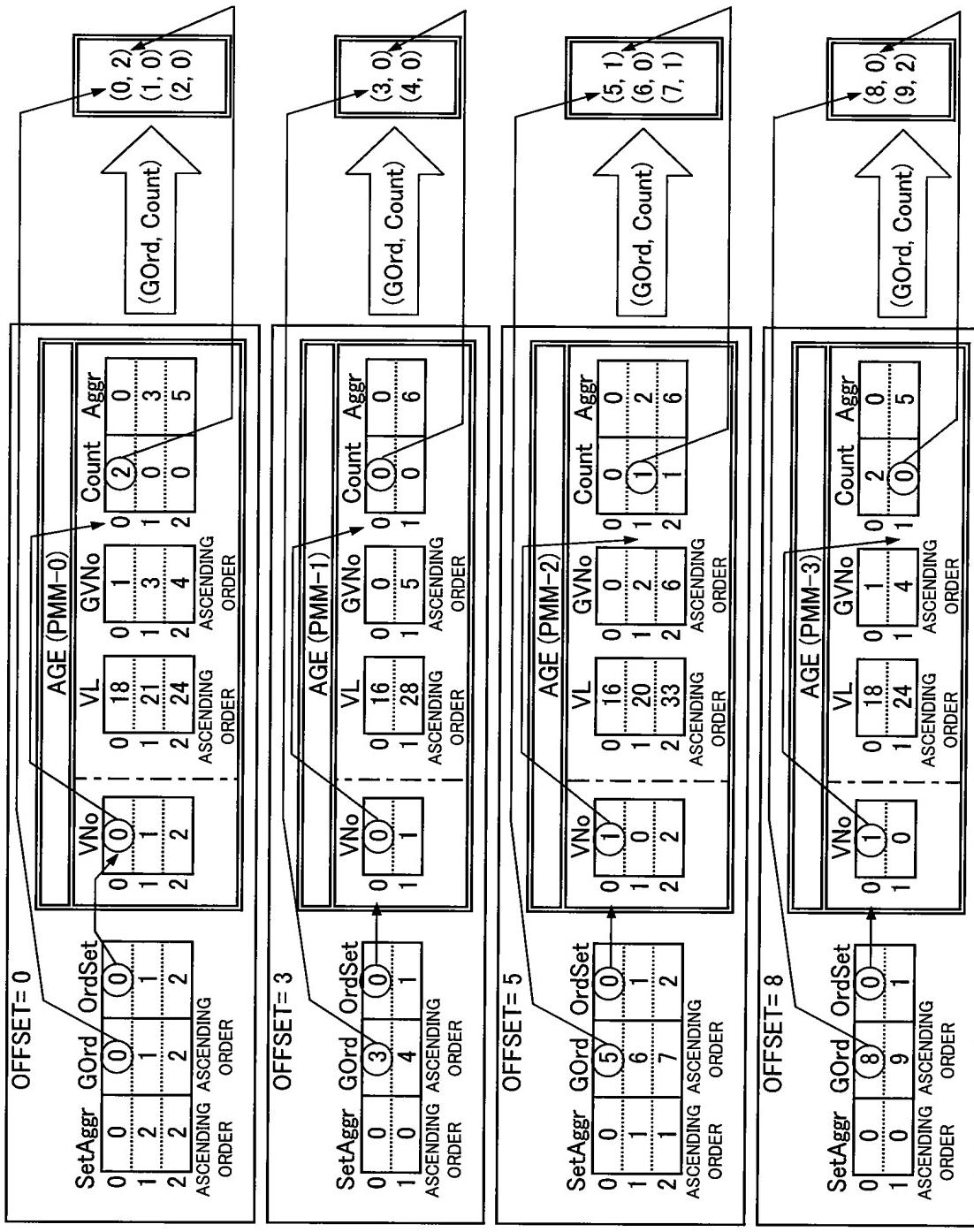


Fig.99

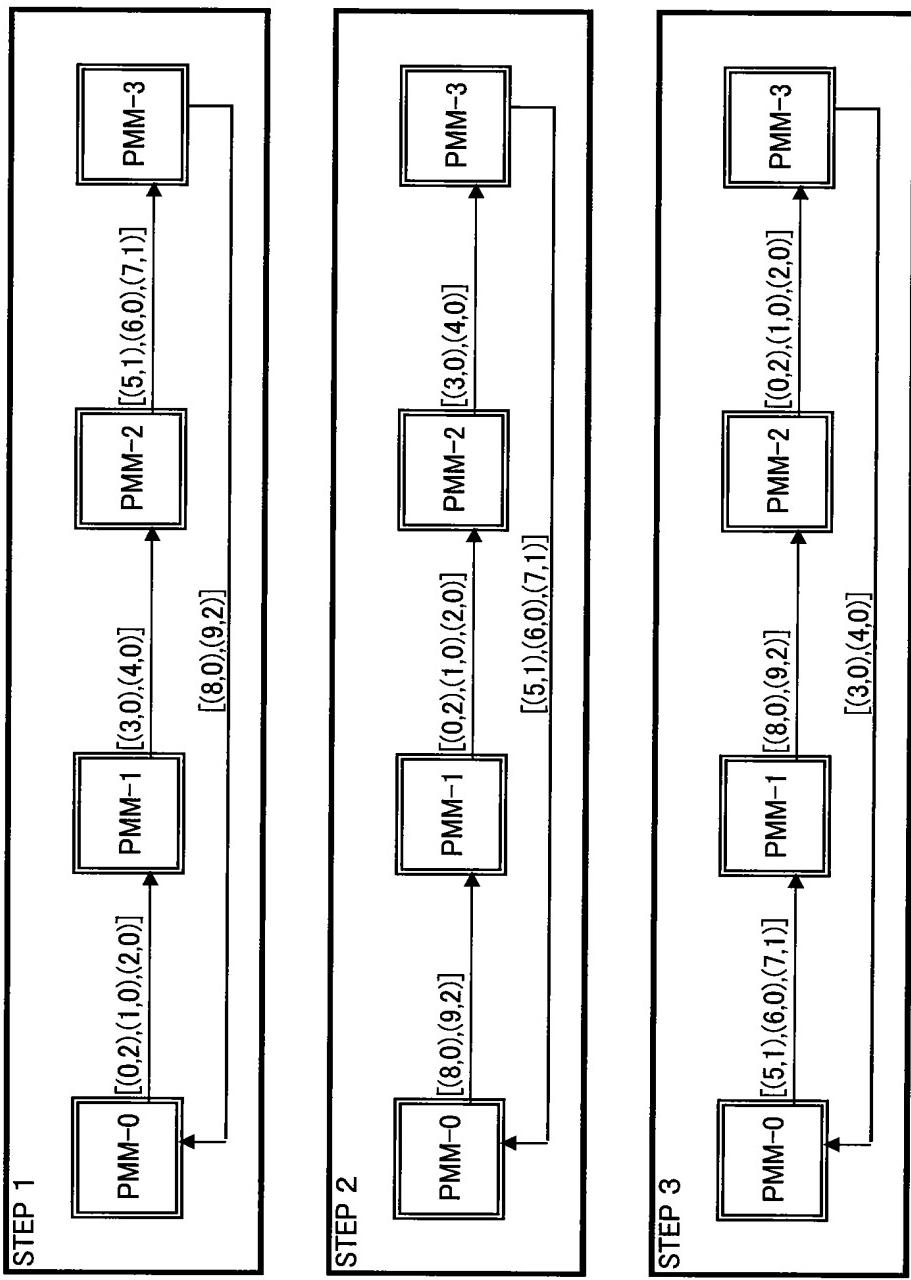


Fig. 100

STEP 1	RECEIVED LIST PMM-0 [(8,0),(9,2)]	PMM-1 [(0,2),(1,0),(2,0)]	PMM-2 [(3,0),(4,0)]	PMM-3 [(5,1),(6,0),(7,1)]
STEP 2	RECEIVED LIST PMM-0 [(8,0),(9,2)] [(5,1),(6,0),(7,1)]	PMM-1 [(0,2),(1,0),(2,0)] [(8,0),(9,2)]	PMM-2 [(3,0),(4,0)] [(0,2),(1,0),(2,0)]	PMM-3 [(5,1),(6,0),(7,1)] [(3,0),(4,0)]
STEP 3	RECEIVED LIST PMM-0 [(8,0),(9,2)] [(5,1),(6,0),(7,1)] [(3,0),(4,0)]	PMM-1 [(0,2),(1,0),(2,0)] [(8,0),(9,2)] [(5,1),(6,0),(7,1)]	PMM-2 [(3,0),(4,0)] [(0,2),(1,0),(2,0)] [(8,0),(9,2)]	PMM-3 [(5,1),(6,0),(7,1)] [(3,0),(4,0)] [(0,2),(1,0),(2,0)]

Fig.101

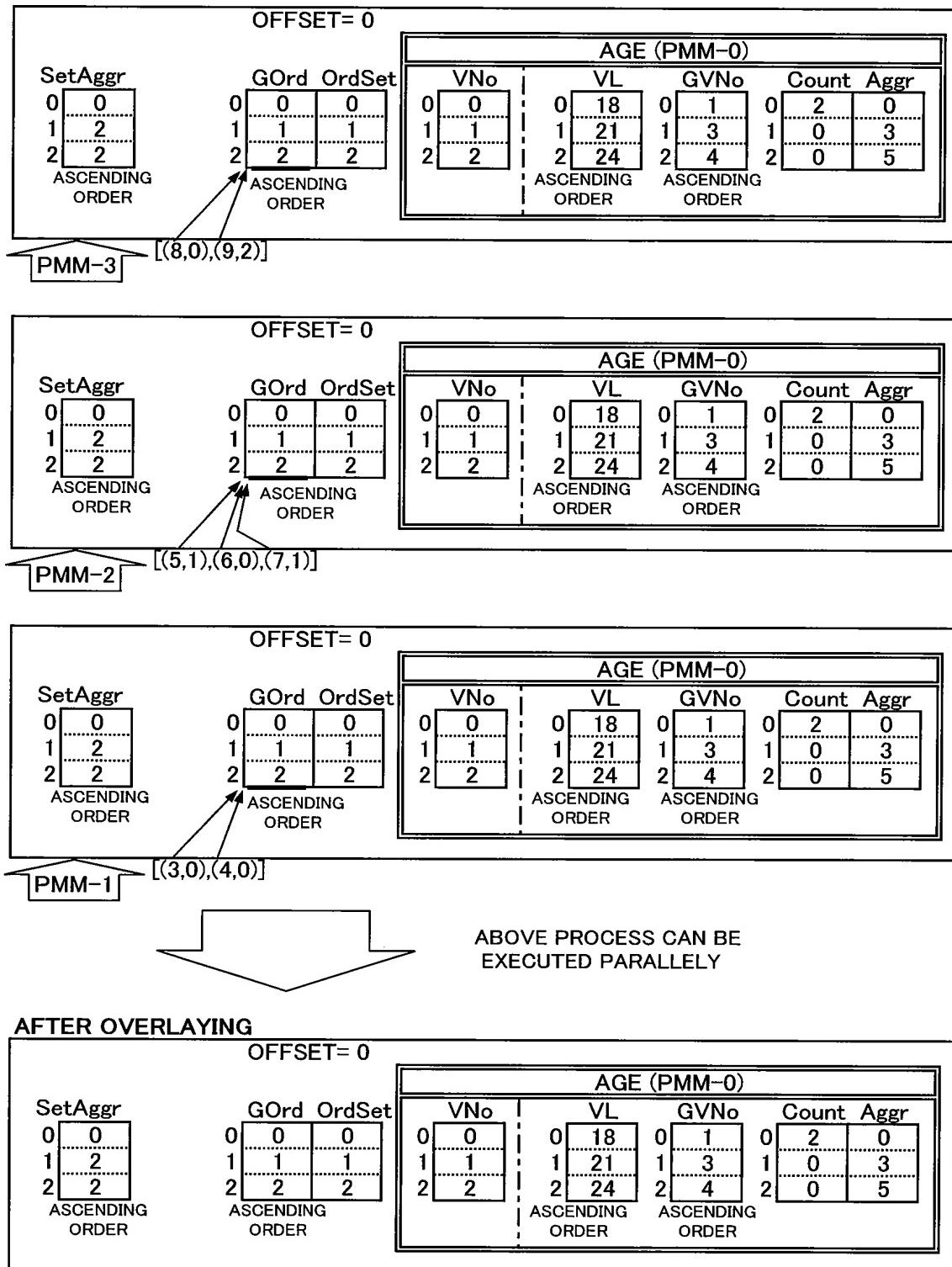


Fig.102

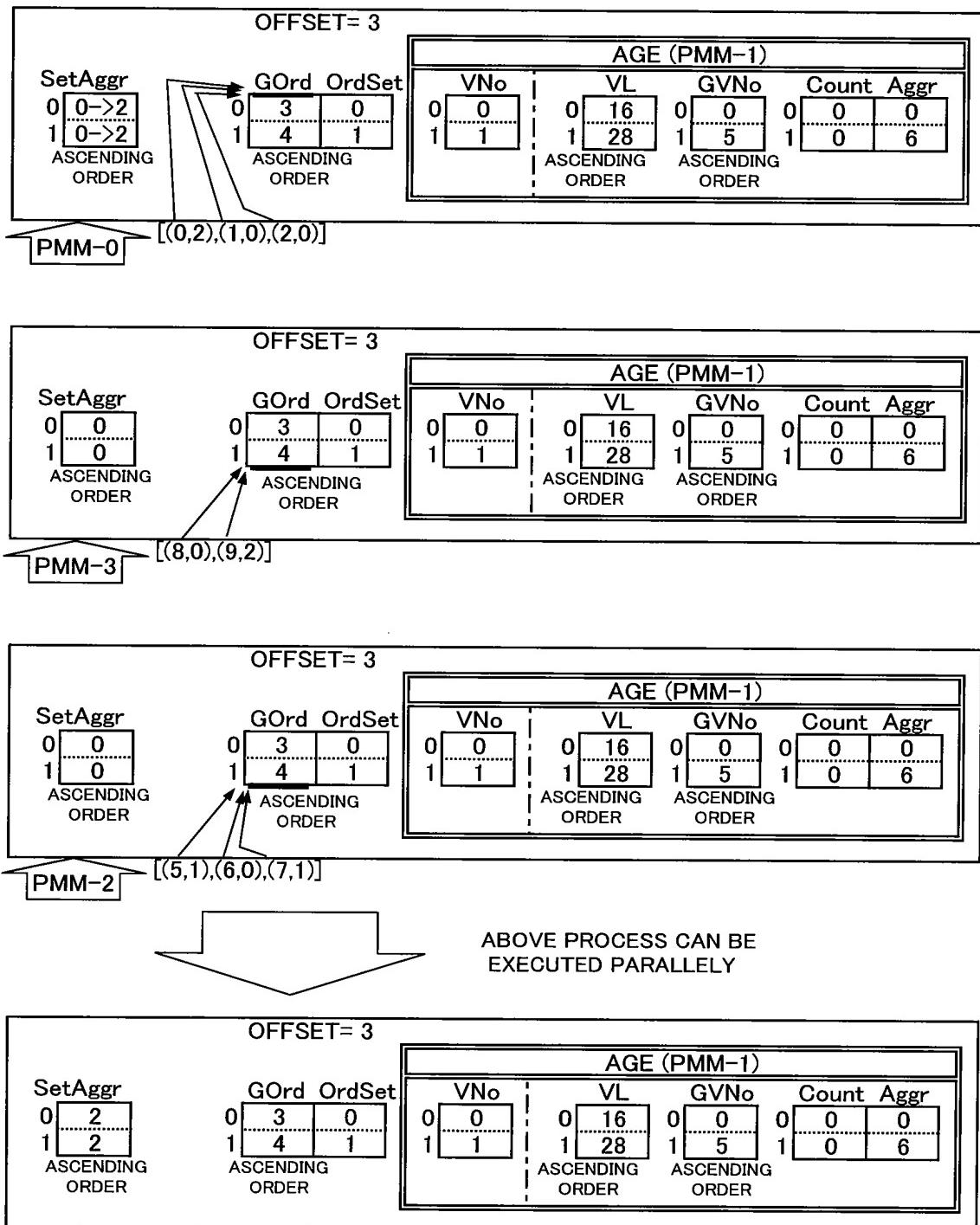
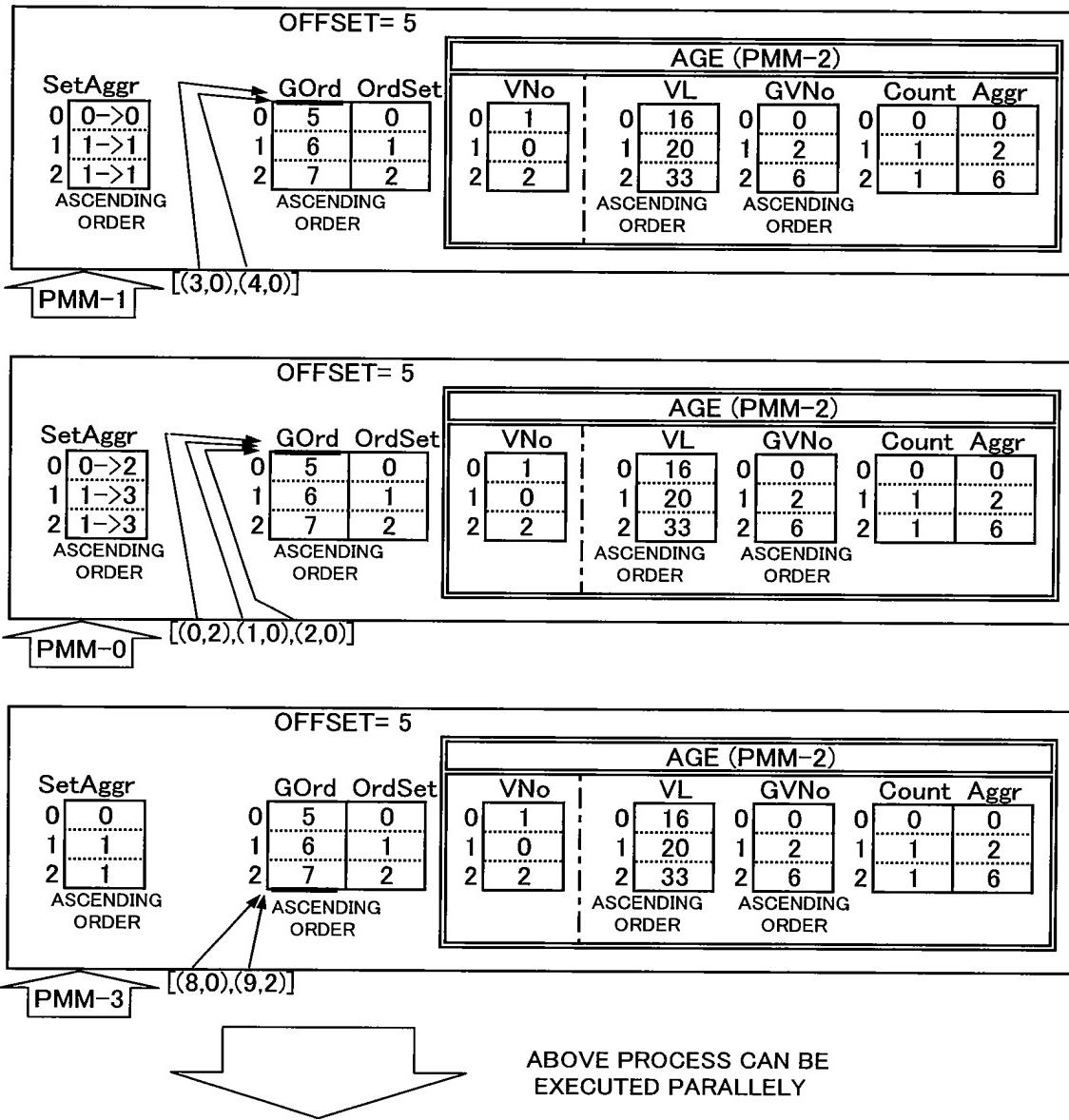


Fig.103

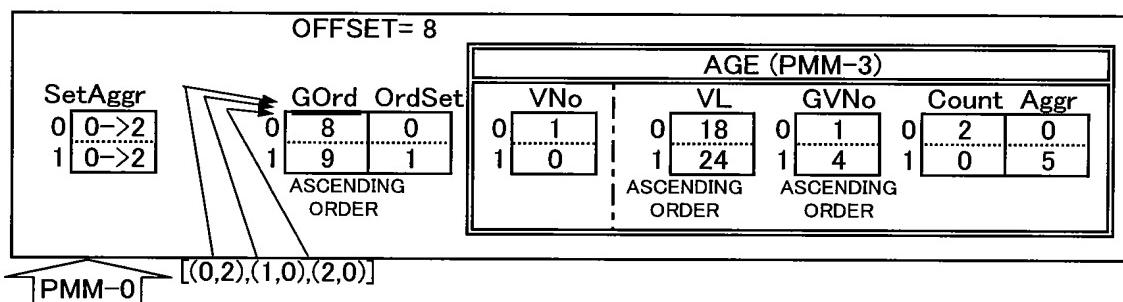
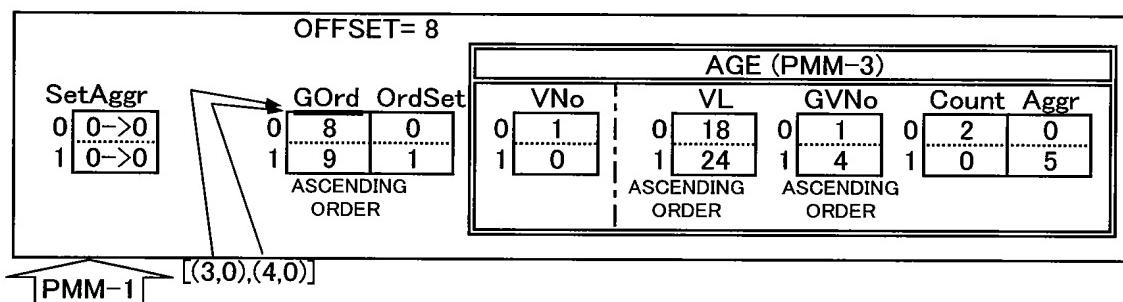
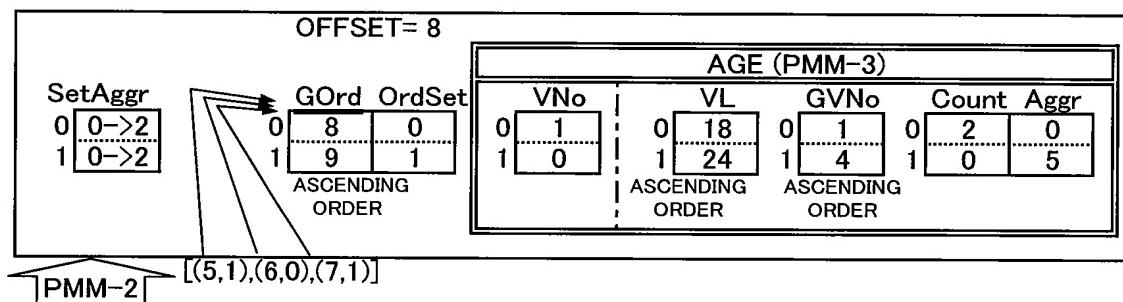


AFTER OVERLAYING

OFFSET= 5

AGE (PMM-2)				
VNo	VL	GVNo	Count	Aggr
0 1	0 16	0 0	0 0	0 0
1 0	1 20	1 2	1 1	1 2
2 2	2 33	2 6	2 1	2 6

Fig.104



ABOVE PROCESS CAN BE
EXECUTED PARALLELLY

